AMERICAN AGRICULTURIST.

Designed to improve all Classes interested in Soil Culture.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON

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March.

"The stormy March is come at last,
With wind and cloud and changing skies;
I hear the rushing of the blast,
That through the snowy valley flies.

Ah passing few are they, who speak,
Wild stormy month! in praise of thee;
Yet though thy winds are loud and bleak,
Thou art a welcome month to me.

For thou to Northern lands again
The glad and glorious sun dost bring,
And thou hast joined the gentle train,
And wear'st the gentle name of Spring."

BRYANT.

To the husbandman, this month is usually the beginning of the year. He is too busy with present duties, too full of hope for the future, to be much affected with the aspect of cloud and storm which Nature generally assumes. The Winter is over and gone, and he comes forth from its long rest, invigorated and refreshed for the duties of another season. He welcomes March as the uncovered earth welcomes the glad smiles of the returning sun. If relapses of Winter come, they are of brief duration, and every period of melting snow and ice grows longer until all are dissolved, and the young blades of grass show their delicate green above the brown stubble of the former year.

The Winter now closed has been as remarkable for its mildness, as the three immediately preceding were, for their severity. The weather has been, for the most part of the time, enjoyable and inviting to out door labors. Farmers have extensively improved it, in repairing walls and fences, in digging ditches, and in laying tile, in carting manure and muck, and in plowing sward lands. The Spring work with all enterprising cultivators, is in a state of great forwardness, and if Nature follows her usual analogies, we may look for an early starting of vegetation. The past three Springs have been unusually late, and all crops have been put in behind time. This Spring we may *hope* for an earlier call to the pleasant duties of planting and sowing.

Thus we complete another cycle of those variations, for which our American climate is so very remarkable, and which has so important an influence in forming the characters of our people. March is a sort of epitome of our climate for the whole year. The changes of temperature are sudden, and not unfrequently extreme, giving us within a few days, a taste of Summer, Autumn, Winter and Spring. Now we have a zero night, and again a mid-day gush of Summer heat, that would do credit to July. But these extremes are very brief, and very trying to people of delicate constitutions. They are, no doubt, the occasion of much of the pulmonary disease, which takes the lead in the tables of mortality in all parts of the country. But we have always suspected, that the imprudence of people had quite as much to do with this class of diseases as the climate. It is quite certain that the keenest of March winds has an invigorating influence upon the lungs of some of us, while others grow pale and shrivel under them. Physicians tell us, and the fact is apparent without their testimony, that the disease which preys upon these delicate organs, never enters them directly, but always makes its approach through other avenues of the body. We may breathe the coldest or wettest atmosphere without any unpleasant sensation at the lungs, if we are so clad as to keep the whole surface of the body at a comfortable and uniform temperature. It has been demonstrated by travellers within the tropics, and upon the Arctic seas, that the lungs can endure, with perfect safety, much greater extremes of heat and cold, than we ever experienced here. We can but suspect then, that March winds are somewhat slandered, and that imprudence in dress has slain its thousands, where the climate has slain its hundreds. With the feet kept warm and dry, and the other parts of the body protected from sudden changes, the lungs are as inpregnable in their safety as the brain or the stomach. With thin shoes and wet feet, bare arms and bare neck, with the late hours and fast living which fashion requires, it were a miraculous thing if "coughs, colds and consumptions," in the familiar language of the quack advertisements, were not the order of the day.

Climate, no doubt, has an influence upon health and physical character, but it ought not to be held responsible for the willful ignorance and moral infirmities of the people. It is a common impression, and perhaps a correct one, that the Anglo-Americans are less robust than the Europeans to whom they are allied. They have less fullness of the muscular system, less breadth of chest, and fewer of the common marks of strength and hardihood than their relations across the ocean.

But notwithstanding this apparent difference in physical development, there is no such difference in physical achievement. Every one who has had opportunity for observation, knows that the laborer bred to our farm work is greatly superior to the freshly imported recruit. He excels him, not only in his general intelligence, and economy of applying strength to work, but in the quickness of his motions, and in his power of endurance. We have often looked with wonder upon the feats performed upon our farms by American laborers. They seem to be all muscle, and their muscles made of steel, so unflagging are their steps, so tireless their arms, as they swing the scythe or ax. This superior activity, and the energy which usually accompanies it, are undoubtedly attributable in part to some peculiar quality in our climate.

A man may get an inkling of what that quality is, on almost any of these bright March mornings, with the wind north-west, and the air a little frosty. The very idea of quiet is a burden. He is as full of life and electricity as a bird is of song. His very step is a pleasure, every blow is a relief to the pent up energy of his being. He imparts his own life to the mettlesome steed that he drives, and to the ox that shares his labors in the field. A dull team becomes a full blooded Devonshire for the morning, and the plow sweeps through the tough sod, as if it were at the tail of a steam-engine. He has not only the faith that removes mountains, but the conscious ability to remove them. The stones grow light as he rolls them into walls, and all the difficulties of farming disappear like frost-work before the morning sun.

There is something in this elastic energy of our people, that can not be accounted for by their peculiar training. Voltaire thought that "climate has some influence upon a people, government a hundred times more, religion and government more still." But the great French infidel looked at this matter through the medium of his own prejudices, and made Christianity responsible for all the lazaroni and vagabonds of Europe. The fact is, we have among us the representatives of all the governments and religions of the old world, and they very soon become assimilated to our physical peculiarities. An important change goes on, even in the first generation. The European laborer put down upon the Yankee farm, catches something of the enterprise of his employer. His step and all his motions become quicker, as if our genial skies had infused new blood into his veins.

This changeable climate has had much to do with the inventive genius of our people. It has suggested all those admirable contrivances for keeping us warm in Winter, and cool in Summer. How much of human skill and energy have been lavished upon heating apparatus, and to what a degree of perfection has it at length been brought, giving us in our cheerful parlors in mid-Winter, the pure air, sifted of its cold, and genial as the breath of Summer! How endless have been the generations of Franklin's and Nott's and humbler names applied to fire frames and stoves, furnaces and dumb heaters, mute in words, but discoursing eloquently, in very intelligible language, for the whole Winter season! Our fervid Summers have called forth those ingenious contrivances for ventilating houses, refrigerators for preserving food, and started into existence the ice trade, which

now, at home and abroad, amounts to millions of dollars annually.

The sewing machine could hardly have been invented, in any other country. Whether man or woman first suggested the idea, it was the utter impossibility of sitting still and sewing in our climate, that fostered the invention, and brought it to its present perfection. How amply have our inventors avenged the past wrongs of woman, in this respect. Already two hundred different patents are in the field, and the end is not yet. The sewing machine is a good type of the young American woman. She is very fast, and goes with a buzz.

It will be seen that we are a little out of patience, owing to the weather perhaps, with the stereotyped complaint of our Spring climate. What other wind is so invigorating and nourishing of heroic deeds as this north-west wind, which prevails so extensively this month? It comes to dry up the superabundant moisture from the fields to prepare the soil for the plow, and to nerve man for his Summer toils. It is sometimes keen and frosty, but always healthful. It is a safe tonic for young and old, and unlike other tonics, large doses do not harm the patient. Under Allopathic treatment from our youth up, we have always thriven upon these bleak winds, and counted them among the blessings of life.

Calendar of Operations for March 1858.

[We note down sundry kinds of work to be done during the month, not so much to afford instruction to practical men, as to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South by making a little allowance for each degree of latitude, that is, later for the North, earlier for the South.]

EXPLANATIONS.—*f* indicates the *first*; *m* the *middle*; and *l* the *last* of the month.—Doubling the letters thus; *ff* or *mm* or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, indicates that the work may be done in either or in both periods indicated; thus, work marked *fm* indicates that it is to be attended to from the first to the middle of the month.

FARM.

Up to this time (Feb. 13,) the Winter has been so entirely different from anything in our experience that we are at a loss to know how to fill out this Calendar. Of snow we have scarcely seen enough to keep one in mind of how it looks, or what are its effects. We are, however, even yet looking for a parting glimpse of Old Winter's peculiar features. Supposing that this will be the case, there is work enough on hand that needs attention. There is timber to be got out of the woods for farm purposes; wood, bark and timber to take to market; and the year's supply of fuel to be looked after, &c., &c. The farm animals need as much care in the sleety chilly weather as in the coldest season. At the South actual field and garden operations are at hand, and our last year's Calendar for April and May will furnish appropriate hints. Here we may look after the following:

Bees—Return those which have been inverted to an upright position, and arrange them in their Summer quarters. Trim off any decayed or moldy comb, and feed stocks which are short of food, guarding against robberies. See "Apiary," on the following page.

Cattle—Give plenty of feed at stated times. Look well to cows "coming in." Young stock should not fall away in flesh at this season. Have working oxen in good condition for the heavy labors approaching. Continue to give roots with cut hay, or straw, and ground feed.

Cellars—Cleanse from any accumulations of dirt or decaying vegetables, and sort over fruits, potatoes, &c.

Clover—Sow, m l, on fields which received timothy seed last Fall. If sown upon a light snow a more even seeding can be had, and the melting of the snow will carry the seed in the ground. From six to twelve quarts per acre, according as the ground is a loam or clay soil, is a suitable quantity for sowing.

Corn—Procure and test seed by sprouting a little. Plowing for, manuring and planting will be in order, m l, at the South.

Cotton—Prepare grounds and plant, f m. Two or three different plantings will extend the period of ripening.

Draining—Commence as soon as the frost will permit, and thus make the swales and bog lands the most productive portions of the farm.

Fences—Procure materials and build where the frost is out. Employ the stormy days in making gates to supply the place of bars. Set Osage Orange, evergreen Thorn and Cherokee rose hedges at the South.

Fodder—Use as last month, remembering that cattle require feeding at the North until May.

Forests—Look to their future prowth, in getting out the yearly supply of wood. Cut down the old and decaying rather than the thrifty young growth. With judicious thinning and an occasional cutting off a few acres of thrifty woodland will keep up a constant supply for family fuel.

Fowls—Have coops in readiness and set hens, m l, for early chickens. Read the chapters on poultry raising in this and the February *Agriculturist*.

Grain—Procure a supply of good seed for Spring sowing. Keep live stock of all kinds from the growing fields. The crops will need putting in, m l, at the South.

Harrow out the corn roots of last year's growth, as soon as the frost will permit.

Hedge Rows—Clear briers, bushes, &c., from the fences that the plow or scythe may make clean work close to them. A worm fence with every angle filled with bushes has an unsightly and slovenly look.

Hogs—Keep them employed in composting muck, loam, and other manurial agents. If properly managed heretofore an increase of stock will now be looked for. Give breeding sows charcoal, salt and a little animal food. See that sufficient bedding is provided.

Horses and Mules—Prepare and harden them with suitable feed for Spring plowing and other heavy work. Try a peck of carrots a day to each animal, giving a less quantity of oats. If they refuse them at first, cut and mix them with Indian meal.

Ice Houses are now (Feb. 19,) being filled in this locality. Fill them with the first freezings if not done.

Laborers—Now is the time to procure help for the season. With a large farm it is poor economy to employ the smallest possible number of hands. The proprietor can direct the labors of several as well as a single person. At the same time no idlers should be permitted upon the farm. The lowest price men are by no means always the cheapest. The *cheapest* general farm hand we ever employed, we paid $30 per month, he boarding himself.

Manures—Cart to the lots where they are to be applied; dump in large heaps and cover with muck or plaster. Keep the manufactories at work, from the horse and cow stables to the hog pens, privies and hen roosts. A little time spent among these daily, adding muck, house slops, &c., and throwing into heaps under cover will pay a good interest in the next corn crop.

Maps of the Farm may profitably be made by the children during the evenings. Let them mark off the different lots, locate the buildings, represent the orchard and woodland, on a large sheet of paper, and on this mature your plans for the coming season. Records may be kept within the different inclosures and the maps filed away at the end of each year as instructive references. It will also create a taste for drawing on the part of the children.

Meadows—Keep stock of all kinds from treading up and gnawing off at this season.

Plow when the frost is out and the ground is dry. Avoid turning over clayey soils in a wet state unless you want to make bricks.

Potatoes—Have seed in readiness. If raised for many years on the same farm, try an exchange with those of a different locality. Both the common and sweet varieties should be planted South during this month.

Sheep will perhaps be dropping their lambs during the latter part of the month. Provide warm quarters for them. Feed roots or grain to those with lamb, and keep separate from other stock.

Sugar Maples—Tap when freezing nights are followed by thawing days. Have everything in readiness and boil down as fast as it can be collected from the trees. Read minute directions on pages 37 and 38 of last number.

Tobacco—Prepare and sow beds at the South, ff m. Transplant former sowings, ll.

Tools of all kinds, working gear for horses and oxen, wagons, carts, &c., should be procured or made at once.

Turnips, Carrots, &c., are, we trust, still in sufficient quantity to furnish a daily supply to milch cows, sheep and horses. They will not come amiss for young stock or working oxen.

Wood—The favorable Winter has been a good season to collect the "down stuff" in the forest. Finish obtaining the year's supply early and have it cut up at the door and housed or sheltered from rain, for seasoning and use.

ORCHARD AND NURSERY.

As comparatively a light business was done last Fall both by the Orchardist in planting new grounds, and by the Nurseryman in his sales, each should arrange early for more extensive operations this Spring. Let those about planting an orchard read attentively the series of articles on this topic commenced in the January number. Note particularly what is said about "varieties" on page 50 of the February *Agriculturist*, and instead of selecting 25 or 30 kinds, confine themselves to 10 or 12. A few of the best early, Fall and Winter varieties known to succeed in your locality is far better than a large number of *reputed* choice kinds.

Planting can usually be done in this latitude during the latter part of March. Where the ground is in suitable condition this early planting is to be recommended.

The Nurseryman should arrange to fill all orders with dispatch by having labels, and packing materials at hand, and as soon as the frost will permit take up a quantity of each variety of fruit and ornamental trees, and set them thickly and loosely in a trench dug for the purpose, filling in earth sufficient to cover the roots. Use every precaution to keep the varieties distinct, and plainly labelled. The space allotted to these trees may be called the *market* from which selections can be made and lists made up with expedition.

Apples, pears, plums and other fruit trees may be set, ll, where the ground is prepared and free of frost.

Evergreens—These *may* be transplanted, ll, but April and May at the north are preferable months.

Grafting—Cherries may be grafted ll. Next month will be the proper season for grafting most fruits. Full directions will then be given.

Insects—See that no scale or other insects are left upon newly planted trees. Let both orchard and nursery be examined and all the affected trees washed with soap suds, or potash and water.

Manures—Grounds should be made rich both for orchard and nursery purposes. Procure according to your necessities and cart to a convenient spot near the planting grounds. Manure can be applied to nursery grounds far better before than after planting.

Mice—Girdled Trees—If any are found cover. ff, with grafting wax or clay, and bank up with earth. Sun and air should be kept from the wounds.

Ornamental Trees of deciduous, or leaf shedding kinds—Plant early, or as soon as the ground is in working order

Packing Trees for Transportation—Use great care, arranging the limbs so as to cross each other as little as possible. Pack the roots with moss or short litter and straw up the bodies and branches. A mat or bag should be sewed around the roots to retain the packing and keep them moist.

Plums—Cut away any warty excrescences, or remove the branches containing them

Pruning—Omit mostly this month, save removing decayed branches and small shoots.

Seeds or Pits—Plant apple, pear, quince, cherry, peach, plum, walnut and chestnut seeds, or pits which were put in boxes last Fall.

Scions—Secure a full supply for grafting before the buds swell.

Shrubs—Transplant as directed for ornamental or fruit trees.

Stakes and Labels will soon be wanted. Provide them, ff, that there be no delay when needed for use.

Stocks budded last season—Cut off the head two or three inches above the bud where the latter has taken.

Transplanting and Planting out—Commence as early as may be, only do not work the ground when too wet and heavy.

Trench or subsoil new grounds, ll, both for orchard and nursery. If inclined to moisture put in drain tile three feet below the surface.

KITCHEN AND FRUIT GARDEN.

March is a busy month with Southern gardeners. In the Southern tier of States they are already thinning, hoeing and weeding, and a little farther North, plowing, planting and sowing, are going on. At the North manures may be carted out, and plowed or trenched in the soil. Hot beds and cold frames will require daily care. Except for early use or marketing, it is not desirable to be in haste to get seeds in the ground. Better let the temperature of the soil reach the vegetating point before sowing.

Artichokes—Plant and dress, ll.

Asparagus—Uncover, manure and fork over beds, ll.

Blackberries—Plant New-Rochelle or Dorchester, ll, or as soon as the ground can be worked.

Borecole and Kale—Sow, ll, where the ground will permit.

Cabbages and Cauliflowers—Sow in Hot-beds, ff, m, and in the open ground, ll. Set out stumps and heads for seed, ll.

Cold Frames require similar treatment to last month, except to give more air as the plants commence to grow. Sow cabbages, lettuce, radishes, &c., to take the places of plants which will soon be removed.

Compost—Prepare for Hot-beds, ff. Provide a good quantity for general use.

Currants—Plant roots and cuttings, ll, if the ground is not frozen.

Cuttings—Make, ff, and plant out those of currants, gooseberries, quinces, grapes, &c., ll.

Drain soils which incline to moisture.

Egg Plants—Sow in hot-beds, f, m.

Fences—Make and repair, m, l.

Figs—Uncover, ll, any buried during the Winter.

Fruit trees—Plant along borders, ll. Selected varieties of dwarf pears, a few peaches, plums, and cherries may be planted by themselves and those vegetables or small fruits grown beneath them which succeed in the shade, such as raspberries, blackberries, &c.

Gooseberries—Plant the same as currants.

Grapes—Uncover buried vines, ll. All vines should have been pruned and cuttings made before this. They will bleed if cut now. Plant cuttings and rooted vines, ll.

Hot-beds—Make and sow, ff, m, or l, according as early or later forcing is desired. (Read the description in the February number.) As the plants in the early beds acquire size before outside grounds are ready to receive them, it is well to have a second bed with a moderate bottom heat to transplant to.

Leeks—Sow ll.

Lettuce—Sow, ff, m, in hot-beds, and, ll, in open ground. Scatter some seed in the cold frames.

Manures—Heavy manuring and deep plowing or trenching are the secrets of success with market gardeners.

Mustard—Sow, ll.

Onions—Sow and put out for rareripes, ll.

Parsley—Sow, ll.

Peas may be sown on warm lands, ll, if the frost is out. They bear several degrees of frost after they are up. Provide brush while you have time. Plow, subsoil and trench garden soils in a dry state.

Potatoes—Plant early varieties, ll, or sprout them as described on page 86.

Radishes—Sow at intervals, in hot-beds, ff, m, l; and, ll, in the open ground.

Raspberries—Uncover buried canes, ll, if the weather is settled. Stake up at once and head back to four or five feet in hight.

Rhubarb—Force a few roots, ff, as described last month. Remove covering from those which were protected during the Winter. Set out new crowns, ll, the earlier the better, after the ground can be worked.

Sage—Transplant roots and sow seed, ll.

Seeds—Procure and test at once. In milder latitudes set out roots &c., for seed, ll.

Spinach—Uncover Fall plants and sow seed, ll. Thin out for use.

Strawberries—Rake off the Winter covering, ll, and give a top dressing of fine, well rotted manure.

Tools—Delay procuring new or repairing the old ones no longer.

Tomatoes—Sow in hot-beds ff, m.

Trellises and Arbors—Repair old and construct new while there is time for it. One style of Arbor is given on page 88.

Trench grounds as soon as they are free from frost and sufficiently dry.

Turnips—Sow a few at intervals in the hot-bed, and in warm borders, ll, for early use.

FLOWER GARDEN AND LAWN.

Unless Winter makes up for his absence in December and January, the mild days of the latter part of March, the swelling buds of the flowering shrubs and the appearance of the early bulbs will invite to the pleasure or flower garden, where preparations for Spring planting may be made. The influence, and oftentimes the labors of the "gentler sex" serve as a stimulus to put the grounds in order as well as may be, and after digging over and a little of the heavy work is performed, the after labors may very properly devolve upon the female portion of the household, to whose service these grounds are appropriately dedicated.

The rubbish should now be cleared away, gravel walks dug over and renewed, borders reset with turf or box, and where the season promises continued mild weather the tender shrubs may be released from their protection of straw, and the bulbs and other roots uncovered. The borders may also be prepared and some of the hardy Annuals sown, ll, such as mignonette, portulaccas, coreopsis, petunias, &c. Other varieties may be sown, f, m, in a hot-bed.

Box and Grass Edgings—Plant and trim, ll, renewing any defective places.

Bulbs—If any have been kept out of ground, plant them, ff, if the ground admits of working.

Carnations, Pinks, and Daisies—Admit air to those in pits or frames.

Chrysanthemums—Transplant, ll.

Deciduous Trees—Set out, ll, in the lawn and along the highways and avenues.

Drain grounds which incline to moisture. It will make them warmer, and they can be worked earlier in the Spring.

Gravel—Procure a supply and replenish old, and make new walks.

Hedges—Set out deciduous, ll, if the ground is in working order. Buckthorn or privet will serve as a good protection, while altheas make a fine screen.

Honeysuckles and other Vines—Prune; arrange, m, l.

Hot-beds—See Kitchen Garden.

Labels and Stakes—During the leisure of this month, provide enough for Spring use.

Lawn—Rake over, ll, to remove the accumulation of leaves and decayed grass. Spread over a dressing of bone manure, plaster, ashes, guano, or fine barnyard manure. Replace bare spots with turf or scatter on seed, pressing down with a heavy roller.

Manures will be wanted to dress both old and new grounds—Provide a sufficient supply, adding as much decayed vegetable matter as possible.

New Grounds—Lay out, ll, according to the plans already matured. Avoid right angles and straight lines. Circles, curves, and waves, can usually be employed for walks or bordered boundaries. A square flower bed is too *set* to give the highest pleasure.

Perennials—Divide and reset, ll, or as early as the season will permit.

Plow deep and subsoil or spade and trench both old and new grounds, as soon as they are in working order.

Prune Roses, Honeysuckles, and other climbers, with the shurbbery which absolutely requires it, f, m.

Roses—Plant cuttings and roots, ll. Prune and regulate pillar and climbing varieties.

Shrubs—Uncover, ll, those which were strawed up or otherwise protected, if the weather appears settled; if not, leave till next month.

Transplanting of trees, shrubs, flowers, &c may be done, ll, or earlier where Spring has fairly set in.

GREEN HOUSE.

Fire heat will be needed while cold weather lasts. Towards the end of the month it may be nearly dispensed with, if the houses be closed early in the afternoon.

Air plants well at all times, and especially so when a more vigorous growth begins. Plenty of air is also required for hardening those plants soon to be put into the open ground.

Azalias—Many are in full bloom and should be watered sparingly. Prune to a good head as soon as they complete flowering.

Bedding Plants—Have a good stock of verbenas, petunias, pansias, daisies, &c., in process of hardening off for frames. Cuttings may still be made, ff, m.

Bulbs—Tie up the flower stalks of those in bloom, and water lightly. Take the more backward to the parlor or hot-house for successive blooming.

Camellias are opening their buds or in full bloom according to the atmosphere of the room. Water and syringe freely until the flowers begin to expand. See page 85.

Carnations—Treat as last month.

Cinerarias—Shift those well rooted to larger pots.

Cleanse the house often, and keep pots and plants free from weeds, mold, and decayed leaves.

Cuttings of myrtles, oleanders, geraniums, verbenas, fuchsias, hydrangeas, jasmines, &c may now be made and put in pots.

Geraniums—Keep from damp atmosphere in an airy part of the house. Shift and water liberally, giving plenty of room. Fumigate to destroy green fly.

Grapes are in every stage, from just starting into growth to bloom according to the forcing they have had. Disbud, pinch in, and tie up as necessary. Water and syringe freely until they bloom. Guard against insects, and keep flower of sulpher on the flues.

Heaths—Maintain even, but not too moist atmosphere.

Insects—Destroy with tobacco fumes, soapsuds &c. It is important that they do not increase at this season.

Layer Woody Plants, f, m.

Mildew—Keep off by dusting plants and vines with sulpher.

Oranges, Lemons, &c—Sow seed for a stock to bud on. Repot and dress those needing it.

Pot off some of the forward annuals and cuttings put in last month.

Prune away any decaying or moldy branches. Pinch in straggling shoots to make a compact head.

Roses—Pot off or shift those which have become established. Insert more cuttings, ff, m.

Seeds—Sow a good supply of various kinds, f, m, for planting out in May.

Shifting or Repotting—This is a favorable month to shift to larger pots most of those plants which will need more room during the season; also to pot off cuttings which were thickly planted in January and February. Put them into pots of such size that they will need no more shifting.

Temperature—This must be governed by the collections. Among none should the mercury fall below 35° and some will require fully 40° to keep them in a growing state, while 50° is low enough for others. Let the heat be as even as possible.

Water—Avoid an excess, although the more vigorous the growth the more water will be required, until the plants commence flowering.

HOT HOUSE & CONSERVATORY.

The sudden changes of temperature and frequent high winds at this season require care in regulating the heat, which should be as uniform as possible. Fresh air should be admitted each day, and the foul atmosphere allowed to escape. Keep every department *clean* and free from dust.

Abutilons succeed in almost any situation. Give moderate waterings, plenty of room, and pinch to a fine shaped head. See description and illustration page 85.

Bark Beds—Repair those needing it by adding one-third fresh tan and stirring the mass thoroughly.

Bulbs—Bring to the warmest part of the house for early flowering. Change the water of those in glasses frequently. Many of them will now show a fine bloom.

Calceolarias—Shift those pot-bound, watering freely.

Camellias are still the pride of the hot-house containing a good collection of them. In watering or syringing avoid wetting the flowers. As they pass out of bloom head back to a bushy habit.

Cuttings—A large number of both succulent and woody plants may now be increased by cuttings. Insert in pots and plunge into the bark beds for a gentle bottom heat.

Fruit—Some of the plants, such as Oranges, Lemons, Figs, Bananas, Pines &c., are now setting fruit and require a uniform bottom heat with plenty of fresh air and moderate waterings.

Fuchsias, Hydrangeas, Pinks, Daisies &c., may be brought from the green-house to hasten flowering.

Gloxinias—Shift to larger pots as they increase in size.

Grapes are in bloom or setting fruit even, and require less syringing. Keep the outside borders well covered, and rub off superfluous shoots.

Insects—Wage war, f, m, l. See Green-house.

Layer woody shrubs or plants, f, m, for an increase.

Musas—Water freely when in a growing state. Change those needing it to tubs of fruiting size. Some of them will now be setting fruit. See illustration, page 80.

Seeds—Sow an abundance of annual both exotics and natives. Plunge the containing pots in the bark beds.

Syringe the walls and plants, and sprinkle the floors each morning to maintain a moist atmosphere.

Water—Give moderately, especially to woody plants.

THE APIARY.

BY M. QUINBY.

Out Door Stocks.—As soon as all the frost in the hive is gone, it should be gently raised, and all filth, such as dead bees, chips or nibbings of comb where honey has been unsealed, be swept out. It will require a great many journeys for the bees to do it—you can relieve them in a minute, besides the bees may not be able to do it before it decays, wholly or in part, rendering it unhealthy for them. Turn back the hive far enough to get a view of the cluster of bees among the comb, and see if they are all alive. Sometimes those on the outside of the cluster, between the last two combs perish by the cold, and remain closely packed together till moldy, if not putrid, spoiling the combs as far as they reach, and making them unfit for anything afterward. These dead bees when present, should be removed early; if the combs, where they are, are already moldy, cut them out. The bees can be kept quiet during the operation by tobacco smoke.

Any that need feeding should be at once attended to. Should the Spring be wet and backward, they will often consume as much honey from the first of March till June, as through the Fall and Winter. The safest place to feed is on the top of the hive; open the holes through the top and put the feed under a cover sufficiently close fitting to keep other bees away.

In Door Stock.—Bees in the house will manifest some uneasiness by a few leaving the hive, whenever moderate weather occurs. They may be kept tolerably quiet by sprinkling snow on the floor of the room, till you get a good day for setting them, which should be clear and warm. Have the stands all ready, so that moving stocks may be avoided afterward, unless they are to be taken over a mile. Put out a dozen or less on stands as far apart as possible. In two hours—after the bees of these have about all been out and returned—as many more may be put on the stands between the first, this in some measure will prevent their mixing. Should the air be mild and the sun bright, old snow will do no harm. Examine them about sundown to see if any have lost a queen. Should such an occurrence happen, the bees of such stock will be in great commotion while the rest are quiet. To prevent their being robbed, or destroyed by worms, they must be broken up and the bees united to some other; or if the family be a large one, some weak family containing a queen, may be united with that.

Severe weather occurring after they are out, may make it necessary to return them to the house. Make the entrance very small, as a protection against robbers, and to preserve as much as possible the animal heat, which is important in rearing the young brood.

Early Lambs.

Those who breed lambs for an early market have them dropped mostly during this month. As there is no grass for the ewes, extra care and feeding is necessary to preserve the lambs, and provide a due supply of milk for their support. A moderate quantity of roots, if on hand, or if not, a full supply of rowen hay is the best food for that object. If neither of them be on hand, soaked oats may be substituted. If roots are used, and the weather be cold, they should not be given in large quantity, as they are cold and watery, and incline the ewes to scour. A quart of cut roots is sufficient for a day, and of all kinds carrots are the best, if you have them, if not, provide them for next year. With all the claims of the superiority of roots as *green* food, by some people, our experience is against it, in *cold* weather, having practiced it long enough to *know*. And our opinion is corroborated by some of the best English and Scotch farmers, in their own practice since coming to the United States.

Dry and warm shelter is also necessary, with plenty of straw bedding. When the lambing season arrives, the ewes should be carefully looked over, and those nearest their time, taken out and separated from the others, and put under warm shelter, so as not to be crowded and overrun by the others. After the lambs are a few days old and well used to the teat, they, with the ewes, may be turned out into the open yard, with an adjoining shelter to go under at choice. No young thing is hardier than a lamb, with enough to eat; and plenty of fresh air and exercise should be allowed to them. Give them a good start, and when the grass comes, nothing will thrive or fat faster; and the little extra pains devoted to their early production will be amply compensated in their rapid growth and early development; while nothing on the farm, in the stock line, pays better in a ready market, and a quick return.

Spring Chickens

Are always in active demand from May to September, in the vicinity of all our cities, and the larger towns. Of course they are profitable to the farmers, and small landholders and cottagers, who breed them. This is a good month to set the hens, and hatch them out. For this purpose, a warm hen-house, and coops in sunny places are required. Let the eggs be kept in a proper temperature, till the hen is ready to sit on them. Thirteen is the proper number for a clutch of chickens. When hatched, if milk curds can be had, this is their best food. If not, soaked bread for the first few days, and after that, Indian meal *well cooked*, like mush for your own table. Raw meal, wet up in the usual way, is harsh and scouring for their delicate stomachs. When a few weeks old, chopped cabbage, "sives," and other tender vegetables, are to be added, and sour milk is the very best drink they can have.

We would, by all means, entrust the early chickens to *woman's* care. She seems to possess the necessary instincts—worth all the boys and men in the country. We have known a Scotch, Dutch, or Irish washerwoman's cottage, surrounded by a close wall, alive with early chickens, when the gentleman's and farmer's premises would scarce supply a fowl for the table before September.

Don't keep the "big" breeds for "Spring chickens" either. A close, compact, early matured fowl is the thing for this purpose. In most large towns a plump, fat chick, the size of a quail, will sell for as much in May or June, as a full-grown one will in October; and if they only know you have them, the tavern keepers and pedlars will be after them every day in the week. To the habit these latter people have of confining them in close, filthy coops for days together, we enter our protest. It is cruel to the chickens. It poisons and defiles the taste of the flesh. It makes them poor. Exercise, good air, and plenty of good food they should have, till wanted for the table; and every one who keeps them on hand for immediate use, should be well provided with yards, and roosting accommodation. To make chickens edibly perfect they should come upon the table plump, juicy, and full of their own natural gravy. "Plump as a partridge," is the term which should always be truthfully applied to the early chicken; and if if they be not so, half their excellence is lost, while, if in perfection of flesh, they are a positive luxury.

A New Fish Fertilizer.

Our readers are well aware that we have condemned a large proportion of the *manufactured* fertilizers, which have been brought before the public with so much flourish of trumpets, backed up and endorsed by the specious but deceptive analyses of "distinguished chemists," and offered to farmers with a very patronizing air. The stand we have taken has incurred not a little loss, as our advertising columns have not been crowded with the "super-phosphate advertisements," which have been so valuable a source of profit to other journals. But though our duty to our readers has impelled us to condemn a majority of these manufactured stuffs, we are none the less ready to bring to notice anything which really promises to be useful to the public. We, therefore, refer with pleasure to a new enterprise recently started at Southhold, L. I., having for its object, the preparation of a cheap fertilizer, from the immense number of fish that abound upon our sea-coast. Repeated efforts have been made to manufacture these fish into a condensed dry manure, capable of transportation, and at a price which would warrant farmers in purchasing it as a fertilizer, but for various reasons, all previous efforts have failed.

Last season, a gentleman erected works at Southhold, to manufacture "fish oil," and "fish guano," under the patent of Messrs. Thurneyssen & Demolin, of Paris. It was so late in the season before the apparatus was completed, that only preliminary experiments were made. The process is essentially as follows:

The fish are taken in quantites of three tuns or so, put into a space between two cylinders heated by steam under high pressure, and there cooked while kept in motion by the revolving of the cylinders. They are next transferred to strong bags, and subjected to powerful hydraulic pressure, while still hot, which extracts most of the water not previously evaporated, together with a large amount of oil. The mass thus dried is ground finely, and put up in bags. Only about one-fourth of the original weight of the fish remains, but this contains the chief valuable fertilizing elements. The profit derived from the oil will enable the manufacturers to sell the fish at a low price.

As above stated, only a small quantity was made last season. Deeming the matter of sufficient interest to our readers, we ourselves selected an average specimen from the mass thus manufactured, taking care that there should be no chance for collusion in the fitting up of "prepared samples," as is too often done. The specimen thus procured, we forwarded to Professor Johnson, of Yale College, for careful analysis. The results we have not space to give in detail, but both Professor Johnson and ourselves agree in the opinion that with a little more perfection in the machinery it is probable that the process will prove successful; and we shall soon have in operation, not only at Southhold but elsewhere, a feasible plan of rendering available as manure, a large amount of the stores of fish abounding in our waters. As soon as the factory is in operation, we intend to procure samples from the materials as actually offered in market, and submit them to the most rigid analytical tests, and give the results, whether favorable or otherwise.

The process is not a "secret" one, but is secured by "Letters Patent," in Europe and America, and there seems to be little chance for deception. As rights to manufacture at different points are offered to the public, if the article should prove as valuable as it now promises, there will be competition enough to keep the price in due bounds. A pamphlet, giving the details of the mode of manufacture under the patent, can be obtained by addressing Mr. Brundred, as per advertisement.

Advertising Dodges—Free Seeds.

Scarcely a day passes without our being beset by some benevolent individual, who appears exceedingly anxious to benefit the entire world and "the rest of mankind." One thinks we ought to get up at our own expense engravings of his new-fangled patent machine. Another is quite affronted because we refuse to tell people that he has cattle, or sheep, or fowls, or trees, or seeds, &c. to sell. Just now we were terribly scored for publishing a man's communication respecting a particular fruit, and leaving out a paragraph which stated that he had 10,000 trees to sell.

The most frequent dodge, of late, is that of sending us a description of certain plants, puffing them to the skies, and wishing us to tell our readers that on sending *two* stamps they can get a few grains of seed. Here is an example. A. L., living in a Western town, sends us 10 peas, which he calls "the very best in the world," with sundry reasons wherefore. Now, he says, "tell your readers, that I shall be happy to supply them with 10 of these peas if they will send two 3-cent postage stamps." Very kind hearted Mr. A. L., we can do no such thing. One stamp will pay the postage on 20 peas, and we think you would make a fine speculation if we should persuade 30,000 or 40,000 of our readers to pay you three cents each (in an extra stamp) for ten little peas, which look to us like very poor affairs.

But A. L. is only one of a multitude who are from time to time trying this game. We give notice that any communication designed to promote a private end, must go into the advertising columns, and be paid for, in advance, at regular rates.

Any subscriber who has anything valuable, which he or she would take pleasure in distributing among the members of the *Agriculturist* Family without taxing them for an extra stamp besides the postage, will be doing a good work, and we shall be happy to make the fact known. There are, however, so many schemes of this kind to get the names of persons for the purpose of sending them an advertising handbill, in connection with the offered seeds, that we shall almost need some credentials, or guarantee of good faith, when such a proposition comes from a distant stranger, even though a subscriber.

A French horse-dealer was asked if an animal which he offered for sale was timid.

"Not at all," said he; "he often passes many nights together by himself in the stable."

How Much Manure to each Animal.

There is a limit, doubtless, to the quantity of muck and litter that may profitably be mixed with the droppings of animals. The quantity of fæces voided also, is affected very much by the feed of the animals, and by other circumstances. In the open air, in Winter, much of the food passes off through the lungs and skin,, to keep up the heat of the system, that would pass through the bowels in a warm stable. The fæces, as they are thrown into a heap in the ordinary method of cleaning the stables, pass into fermentation rapidly and a portion passes off in the form of gas, and is lost. Without absorbents, very often one half, or more, of the value of stable manure is lost to the farmer without attracting his attention. Many cannot be made to believe it, because they do not see the thief loading the manure into the cart with a dung fork. But they can easily satisfy themselves of the theft, if they will compare the effects of stable manure, that is exposed for a Winter, with a like quantity that is treated with absorbents, and kept under cover.

The general error is to undervalue the need of absorbents, and to furnish the yards and stables with but a small part of the muck that might be profitably used. If there be an instance of error in the other direction, we have not yet found it, in a very large observance of the practice of our best farmers. We have visited numerous farms the past season, for the purpose of looking into this matter, where the quantity of manure manufactured upon the premises varied from two hundred loads to two thousand, and have not found a single case where muck was used in excess. Indeed, this is hardly possible, while the muck itself consists of the elements of the crops the farmer wishes to raise. The manures hasten the decomposition of the muck, and the whole mass becomes available for the food of plants.

The success of a farmer, in all the older States, can be measured by the extent to which he uses muck, or other absorbents, in his yards and stables. We found some poor farmers making not more than three cords of manure. or six loads for each cow, ox, or horse, and not more than one cord for each pig. Others, who thought themselves pretty good farmers, made five cords to each cow, and one or two for each pig. In a single instance, we found as high as ten or twelve cords for a cow, and four or five for each pig. In this case, the pigs, were, of course, kept in the styes continually, and nothing was wasted in the highways and pastures, as is quite too common. The horses and oxen were also stabled the most of the time, and the cows put in the stable during the Summer nights, and fed with green corn fodder, as soon as it was large enongh.

Our own rule in making manure is, fifteen cords for each cow, ox, or horse, and five for each pig. The routine of management for the stables is this: A large shed is attached to them, which is kept well supplied with dry muck. A stock is kept on hand for several months ahead, as the drier it is the better. A coating of this muck is kept constantly in the stables, six or eight inches in thickness. This is lain upon by the cattle, and receives all their droppings. The solid fæces are removed every morning into the barn cellar, beneath the stables. The coating of muck remains about two weeks, when it is a good deal rotted by the heat of the animals, and thoroughly saturated with liquid manure. It is then all thrown into the cellar, and another coating is put under the animals, to go through the same process. The muck is covered with a bedding of straw, or refuse hay, every night. In this way the animals are kept dry and comfortable, and the heat of their bodies is available, whenever they lie down, for decomposing the muck.

Notwithstanding the large quantities of muck used in this way, it is still found that the manure heats in the cellar beneath, though there is little smell of ammonia. In the Fall the manure in the cellar is removed to the field, and heaped up with about twice its bulk of muck. These heaps are forked over once or twice during the Winter, and at planting time they are spread upon the ground, and plowed in. The manure made during the Winter is either put immediately into the soil in the Spring, for early crops, or put in heaps and treated, like the Fall manure, to be spread and turned in, the last of May, for corn.

Of course, this routine of stable management involves a good deal of labor, but we are satisfied that it pays better than labor laid out in any other form upon the farm. The results of forty cords of this compost upon an acre of corn ground, is as good a certificate of its value as it needs. Of all methods that we have tried, this suits us best, and we expect to abandon it, only when we give up tilling the soil. A farmer, who has muck accessible, may better make fifteen cords of manure for each of his large animals, than any less quantity. He is perfectly safe in hiring all the labor he needs to draw the muck, and to handle it in the stable, the cellar, and the field. We are confident, that no farmer, who once sees the results of this method in his crops, will ever be satisfied with a less quantity of manure from his stock.

Reapers and Mowers, &c.....II.

FIELD TRIAL OF IMPLEMENTS BY THE UNITED STATES AGRICULTURAL SOCIETY, JULY, 1857.

To the Editor of the American Agriculturist:

In my first article I commented on the injustice of permitting Ball, Aultman & Co., and Miller & Aultman's Mowing machines to "go on," which did not work, or broke down in the clover field, the first and *most important* day's trial of any at Syracuse. By all that was fair and just I contended that they should then have been "ruled out," they having thrown away or lost their chance for further exhibition. I also commented on the absurdity of any "Points" that should give a machine a "first prize," which, owing to its greater heaviness of draft, compelled its team to draw two millions three hundred and four thousand pounds (2,304,000 lbs.) more per day of ten hours work, than another machine competing with it, viz. Hussey's.

As a second illustration of the above subject, and the unfairness of giving the *first prize*, to Ball, Aultman & Co's machine, let me again quote from the Report under review.

"Another question, connected with the amount of draft, seems to call for remark in this connection. We allude to the weights of machines. This difference on level ground is trifling, but when *ascending hills* it becomes of *great importance;* and as most farms are more or less hilly, it becomes a matter of serious consequence to the farmer to select the *lightest* machine—other things being equal. The ascent in the Haydon meadow was estimated at 80 feet from the plank road to the eastern end of the lot. Its length was 60 rods, and the horses averaged four minutes in walking the distance. It follows, therefore, that the power expended in overcoming simply the gravity of each machine, is expressed by the weight of the machine raised, perpendicularly, 80 feet high in four minutes."

"Table *E* shows the weight of Ball, Aultman & Co's machine to be 995 lbs., and Walter Wood's to be 719 lbs, making the difference of power from this single source, equal to that required to raise 276 lbs., 80 feet high in four minutes, which is rather more than one-sixth of one horse power. The difference is still more striking in Allen's Machine, where the difference is 313 lbs. 80 feet high in four minutes, or about one-fifth of one horse power."

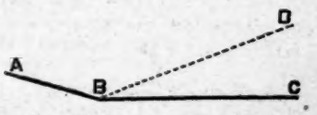
See pages 35 and 36.

Before commenting on this extract, I would respectfully ask, why take Wood's and Allen's machines for a comparison, instead of Hallenback's and Osborn's, as these stand lowest in weight in table *E?* There, the latter is set down as weighing 658 lbs., making a difference between it and its competitor, Ball, Aultman & Co., of 337 lbs. Thus Osborn's machine has an advantage in weight or draft, over Ball & Co's., of 5.355 lbs. per hour. Admitting that the machine travel half the day up hill, and half the day down hill, there would be five hours out of the day in which the latter machine must carry this extra weight, which would be twenty-six thousand seven hundred and seventy-five pounds (26,775 lbs.) more in the one case than in the other; and yet Mr. Osborn, like Mr. Hussey, gets no credit for this great saving of labor to the poor team on a hot summer's day; for when we turn to the final Table of Merit, page 87, behold against "Effective Power," we find this line in the column for Osborn blank of all figures! What justice, what fairness is there in adopting a "Scale of Points" which leads to such a decision against this very light machine! Does this not look, to use a familiar and homely comparison, like being all *turkey* on one side, and all *owl* on the other; or in tossing a penny for a chance, it is "head up," Ball, Aultman & Co. *win*, "tail up" Hussey & Osborn *lose*.

The Report then goes on to describe the Ball, Aultman & Co's machine at full length, and with considerable unction. The Committee probably thought that the more *complex* it could be made to a plain, simple minded farmer, the more valuable the machine would be to him. He is informed that when the cutter-bar is removed, "the machine will answer very well for a *buggy!* Would it not also answer equally well for a *baby jumper?* Perhaps if it did it would be all the more useful and desirable, especially to the female portion of the farmer's household.

The Report continues. "It cuts well at a very slow motion, though the stubble is about *an inch longer* than when cutting faster." Then if any farmer desires to make the most of his grass and cut it as usual with them, he must dispense with any team that savors of *slowness*, and launch out among the "fast boys" of "Young America."

The Report seems to think highly of its cutter, and says, "it adapts itself with very great perfection to all the inequalities of the ground by means of a double hinge joint." Here I join issue with the Judges, and inform them that upwards of three years ago, before Ball's "double joint" was made known to the public, a friend of mine after carefully experimenting with this same thing condemned it. In tolerably smooth ground—*where it is never needed*—the cutter works well enough; but where there are stones of any size, ant hills, hassocks, or rough places, this machine *can not work*, as has been abundantly proved by many farmers in Ohio, where it is best known. Let me illustrate this by the cut below.



The line *A*, represents the pitman or connecting rod—*B*, the double or universal joint of the cutter bar—the line from *B* to *C*, the cutter bar as it

hes on the ground for cutting grass. Now put the machine to work on uneven ground, and it will be constantly throwing up the end of the cutter bar at *C*, to as high an angle as it can possibly work at *D*, which is about 13 degrees. As the end of the cutter bar at *C*, rises towards *D*, the knives begin to bind in the fingers—the grass is skipped and mostly left uncut—the cutter bar moves back and forth so hard that it adds greatly to the draft of the machine—often entirely stopping it—the knives choke—breakages of various parts of the machine follow—and there is an end of its cutting till the machine can be repaired. I am told by a friend familiar with the facts, that almost every connecting rod or cutter bar, or some other parts, broke in 16 machines which were used in or near Warren, Trumbull Co., Ohio, in the season of 1856; and he was informed that these breakages were nearly as numerous in other places where they were used. The manufacturers professed to have obviated all these defects in the season of 1857; but I understand the complaints of breakages and bad working of the cutter bar, &c., were almost as numerous this season as ever. In my humble opinion, the "double joint" and accommodating finger board, which found so great favor with the Committee reporting on them, will be given up as worthless after a year or two more of abortive trials.

Cunning enough were the owners of this machine in declining to operate it on the *first and most important day's* Trial at Syracuse, where there were a few small stones and the surface of the field a little rough Its more than half brother, No. 19. Miller & Aultman's—Ball, Aultman & Co., very soon broke down, and was no more heard of that day. Was it surprising that the public then present drew their conclusions that the same fate would have attended No. 18, E. Ball's invention—Ball, Aultman & Co.? Yet to the wonder and indignation of every one knowing the facts of the case, it seems that a majority of the Judges did not coincide with the public in its "conclusions;" but with an impudence which knows few parallels, they took it for granted that this machine would have worked perfectly well on that eventful day, and gave it the First Prize; thereby endeavoring so far as they could, to add *hundreds of thousands* of dollars to the value of the Patent!

Was not one of the most influential Judges in this decision an agent for this machine at Columbus, Ohio! I pause for a reply. H. L.

Syracuse, N. Y., Feb. 9th, 1858.

[From another Correspondent.]

To the Editor of the American Agriculturist:

I have read with interest "H. L.'s" Review of the Report of the Committee on Trial of Agricultural Implements at Syracuse.

The errors, inaccuracies, mis-statements, and wrong calculations therein, are unworthy of the U. S. Agricultural Society, and the Report ought to be suppressed. My attention has been called to a letter of the chairman of the committee, in which he admits some of the errors, and particularly in reference to the Ketchum Machine. I own, frankly, I am a "Ketchum man," and witnessed the trial, and know great injustice has been done that machine. The Hon. Chairman admits, that the weight is stated at about 100 pounds too much, and that the draft is 102 pounds too much, with this correction, it being the lightest draft of any machine in the field. I regard these as errors wholly inexcusable. He also admits that "he cannot say certainly whether" the cut of Wood's Machine is stated at 54 or 64 inches. Everybody knows it was not 64, and the chairman ought to have known its precise length. The Report also states, that Ketchum's Machine advances *six inches* to one vibration of the knife. Well, this machine must do wonders, if it can cut six inches with one stroke. There are many such covert hits at the Ketchum Machine, mistakes and errors being always against it and some other machines, that stood in the way of the favorite. Query—Will the society withhold the premiums?

Genesee.

Are the Prices of "Blooded" Stock Going to Fall.

To the Editor of the American Agriculturist:

I am a breeder of blooded cattle, and have thus far succeeded satisfactorily, both in rearing stock, and sales. The stock trade, generally, has been active for several years past, and prices remunerating to the farmer and breeder, at large. What is to be the effect of the present reaction in commercial affairs, and the scarcity of money, upon the prices of meats in the United States, and upon our better classes of stock—particularly blooded, or fancy cattle, sheep, &c?

Yours, ———

REMARKS.

We embrace this opportunity to give an opinion on so direct and important a question as the above. In the first place: because we know it to be *mentally* the query of many a choice stock breeder throughout the country, who fears, almost, to ask the question *openly*; and, in the second place, to state a fact, or two, concerning such stock, itself.

We, Americans, are a nervous, spasmodic, and excitable people, in our feelings and actions, and in nothing more so than in matters of trade, and occupation. Twenty years ago we were importing Short-Horn, Hereford, and Devon cattle—Short-Horn, chiefly; Longwooled and South Down sheep, and swine—chiefly Berkshire. Prices were high, and sales frequent. In four years from that time, meats of all kind had fallen to ruinously low prices, hardly worth the raising; and improved stock fell down to zero, in prices, yet not in intrinsic value. But sales were few, and prices nominal. With better times, and the increase of our exports of meats, prices of all farm stock rose rapidly, until they became *too* high, in reality, and so they held until within a few months past, during which they have rapidly receded, although not to what may be termed a *really* low figure. Experience, however, had taught us, during the years of low prices, the comparative value of our domestic, or native breeds of stock, by the side of those crossed with, or having an infusion of the "improved" blood in their veins. The latter could be bred, reared, and marketed at a profit, while on the other, there was either no profit at all, or a positive loss. Consequently, when meats rose in price, the material to make those meats the most profitable to the farmer rose in value, also; and for the last five or six years, numerous catalogues of foreign cattle, sheep, and swine, have been imported from England, to cross upon our old importations, and to breed anew—at prices, too, higher than ever were known before in this country, and also of quality in the animals themselves, far superior. Their sales have been rapid, and they have been widely disseminated throughout the stock-breeding States.

The consequence of all this is: the *material* of our meats has been greatly improved; our stock-breeders are enabled, in cattle, to get their beeves to market, one to two, and even three years younger, with greater weights than before—and comparatively so, with our mutton and pork; and all at less cost for the same time in keeping, than with our old, unimproved stock. With this experience, therefore, we cannot afford to fall back, nor to stand still. The stock-breeder, the grazier, and the feeder for market must go on, and still *further* improve, if he means to make his buisness profitable. Prices, although they have fallen considerably, have not fallen ruinously, nor will they. We have had an alarming money panic throughout the land. It has been dreadfully violent; but from that very violence it will be all the more temporary. The country is full of enterprize, industry, and hopefulness. We cannot afford to lie still, and must, of necessity, go on. The world still revolves, and California and Australia still yield gold. and so, good, blooded stock will retain its value. Sales may be slower for a time, and prices may be somewhat lower than they have been for two or three years past, but their permanent value will not be lessened. Our farmers now *know* the worth of that kind of stock; they must have it continually to build, and *level up* their old stock with, or suffer in the sales of their beef, pork, mutton, and wool. Now, indeed, are the times to buy, for all who want to infuse *new* blood into their herds and flocks. No man who has the ability to hold his valuable breeding animals, of any kind, should be alarmed at the talk among panic-stricken men—of "ruin," and "low prices." We have just as much confidence in the prospects of the breeders of fine stock as ever, and that confidence has neither been slight nor wavering.

Antidote to the Rot in Potatoes.

To the Editor of the American Agriculturist:

There are certain substances—some of which are also fertilizers—that are almost certain to prevent the rot in potatoes. Peat is an antiseptic—that is, counteracts putrefaction or rot. Tan bark and charcoal also possess the same anti-rot qualities, in nearly as great a degree. But neither of these substances are fertilizers till decomposed; to do which requires a great length of time, or the mixture of some other substances with them, such as fish or other animal matter, with the peat, for example.

Lime as well as wood ashes is a fertilizer, more especially the latter when unleached. In fact, unleached ashes will have a greater effect upon the grass crop than any other substance which can be applied to it, excepting, perhaps, Peruvian guano or bone-dust, where the soil has been greatly exhausted. The application of lime or ashes would not act as a partial preventive to rot in the potato, but they would be excellent fertilizers to apply to the crop—above all, the ashes

To ensure a large crop of potatoes and of a *superior quality*, there is no preparation equal to turning a rich pasture sod flat over, a day or two only in advance of planting. As you furrow out for planting, don't disturb the sod; it then decomposes about as rapidly as food is required for the growing crop. Another great advantage of a sod turned flat over, is, few or no weeds spring up during the Summer. Rich barn-yard or other putrescent manures applied plentifully to the potato crop, is almost certain to bring the rot; and the quality of the potatoes is not so good, as when grown on a sod without manure. L. S.

Wisconsin, February, 1858.

Smoking Chimneys.

Jas. H. Stout, of Wheeling, Va., writes that "a simple plan to prevent smoke passing down a chimney is to make openings through each side two inches square, and about eighteen inches from the

top. This will effectually stop this annoyance, even in the most gusty weather. When the wind enters the top of the chimney, it passes through the openings and can never overcome the upward draft.' REMARK.

We do not see the "philosophy" of this remedy, since the pressure of the air produced by a gust of wind would operate quite as forcibly upon the side openings, as upon the top.

Introduction of Merino Sheep into the United States.

We have little taste for discussions of historic dates, &c.; the *present* value of this or that animal or plant, is with us the important question. Still, as many sheep-raisers have indicated an interest in the topic named above, we give place to the following communication:

To the Editor of the American Agriculturist.

S. G. Goodrich, (Peter Parley,) in "*his Recollections of a life time*," quotes from the Cyclopedia of American Literature, a statement with regard to the introduction of Merino sheep into this country, which he should have known was not in accordance with facts. Thus: Vol. 1. p. 404, he says: "The first Merino sheep brought into the United States, were imported by Chancellor Robert R. Livingston—a pair of each sex in 1802. Mr. Delessert sent a few others soon after. Little attention however, was paid to the subject, and it seems that about 1805, half breeds were sold at a price below that of common sheep. Afterwards, a larger importation was made by Col. Humphreys, who had been our Minister to Spain, and our Consul Jarvis. These were three hundred in number, and arrived in 1810."

Why if Goodrich's "Recollections" had given out, and he must needs make a book, did he not give us some reliable statement from Livingston, showing the year, month, and day, when his "*pair of each sex*," where introduced? Why did he not refer to Humphrey's works, 4th edition, published in New-York in 1804, and which are in all our Libraries, and give us the true state of the case? There he would have seen in a dissertation on the Merino sheep, dated Boston, August 25th, 1802, the following, which I extract from page 349. "Convinced that this race of sheep, of which, *I believe not one*, (surely Gen. Humphreys had an opportunity of knowing,) had been brought to the United States until the importation by myself, might be introduced with great benefit to our country. I contracted with a person of the most reputable character, to deliver to me, at Lisbon, one hundred, composed of twenty-five rams, and seventy-five ewes, from one to two years old. They were conducted, with proper passports, across the country of Portugal, by three Spanish Shepherds, and escorted by a small guard of Portuguese soldiers. On the 10th of April last, they were embarked on the Tagus, on board the ship Perseverance, of 250 tons, Capt. Caleb Coggeshall, master. In about fifty days, twenty-one rams and seventy-five ewes were landed at Derby, in Connecticut; they having been shifted at New-York on board a sloop destined to that river." And on the 365th page is an engraved copy of a gold medal inscribed: "Presented by the Masachusetts Society for promoting Agriculture, to the Hon. David Humphreys, Esq., late Minister to the Court of Madrid, as a testimony of respect for his patriotic exertions in importing into New-England 100 of the Merino breed of sheep from Spain, to improve the breed of that useful animal in his own country, 1802."

Here, then, we have reliable proof that Humphreys landed ninety-one sheep in Derby, his native place, on the first of June, 1802.

And now, as to the three hundred which Col. Humphreys and our Consul Jarvis are said to have introduced. Mr. Jarvis writes me under date of January 11th, 1858, that he "shipped to this country in 1809 and 10, about 3050 of the purest blooded Merinoes of Spain, and that the same years there were shipped, principally from Lisbon, about 3000, now making 6050" (instead of 300.) "These numbers may be relied on, he says, as he was Consul at the time in Lisbon, and all the American vessels from Lisbon to the U. S. took a clearance from the Consular office specifying the quantity and quality of their cargoes...." G.

PRICE OF PERUVIAN GUANO REDUCED.—An important Official Announcement of the Peruvian Government, to this effect, will be found in our advertising columns, page 95. This reduction will most probably be lasting. The retail prices will probably be about 3 cents per pound for less than a tun, and not far from 2½ cents per pound for a tun or more.

Keeping House in the Country.

"HELP."

My series had very nearly come to a premature end, on account of what we call here a "scarcity of help" by which we do not mean *literary help*. Impelled by my feelings, I had written two pages on the subject, but threw them in the fire, because they cast rather a dark shade on what I would fain make a pleasant picture of life in the country. One ought not, however, to conceal the truth, and as this is unquestionably the one great difficulty, it ought to be looked fairly in the face.

"How," asks the conscientious young housekeeper, "must I train and treat my servants? Some people have a happy faculty of inspiring affection and respect, but I have not succeeded. How can it be acquired?" Alas! all receipts must begin like the famous one for fish-boiling: "First catch your fish." I have never heard that trout, though proverbially hard to catch, ever took any airs in consequence, when fairly on the gridiron. The domestic long-angled-after, certainly does, and thereby complicates an operation all ready difficult enough. I don't think any writer in the numerous books of advice to young ladies, young wives and young housekeepers, treats of the relation of domestic service as it exists in many parts of this country. We are charged to be considerate and firm, gentle, and decided, &c, &c, all of which supposes that we possess some degree of power, influence, and authority; whereas, we have often not even the shadow thereof.

What does it matter to Jemima that Mrs. B—— *insists* on her making good bread, when Mrs. C——, who lives across the street will let her make it as sour as she chooses, if she will only come and do the washing for her eight boys? But Mrs. B—— has also a large washing, and so she will do well to give up the bread point, and appease the insulted Jemima if she can.

In Europe, the custom of giving characters to domestics, while often useful as a protection, is still a means of control. In this country, we have not even that. "I cannot give you a good character," I heard a lady say to a girl who had been detected in dishonesty. "Bless ye mum! I don't want it. *I never needed a character yet!*" She was right—in less than a week she had a good place.

What then is the remedy? It is true, as we are constantly assured in the papers, that, while this system of domestic help exists in so many places, our cities are overflowing with women needing employment. "*Needing*," I say, not *wanting*—for it is an undeniable fact that thousands prefer beggary and privation in the city, to comfortable homes elsewhere. Benevolent societies are in operation to supply the destitution of some places by the superfluity of others, and thousands are yearly sent to the West, over the great lines of travel. How they prosper there, and whether they satisfy their employers, I have no extended means of knowing. In our neighborhood, the experiment has been tried, and proved a failure. About twenty women and nearly seventy children were sent to this county two years ago, and were welcomed into respectable families—many of them sanguine and anxious for the success of a scheme which promised to lighten the labors of our over-worked housekeepers, while it afforded the best of relief to our suffering fellow creatures. With the orphan children it prospered well. Most of these are still here, doing well, and they may grow up useful members of society. But the children whose parents could claim them, and a. the women, with a very few exceptions, have returned to New-York, to the great *delight* of the families they again left *helpless*.

I have not space, nor would it profit, to detail the reasons of this failure. Difference of religious belief, the disappointment of exaggerated expectations, and a dislike to the dullness of the country were the chief. Had they come here directly from the emigrant ships, they might have been more manageable, but as it is, the result of the experiment has closed to us all hope of relief from abroad for a long time to come. It will take us nearly twenty years to recover from the effects of our recent trial.

Consequently, if there is any place where the three questions: How to do *without* servants? How to do with few? and how to manage those we have? are carefully and earnestly canvassed, it is here. I shall consider them further in my next. EMILY.

Windholme, Pa., Jan. 15th 1858.

Household and Barn Cats.

Did anybody ever have an honest house cat? That is to say; a cat that would not steal cream when she could get into the milk-room, or buttery; or the moment the meat-closet door was open, would not slip in and plunder the dishes? If so, we never yet heard of it. We have had sundry cats in our lifetime, for mouse-catching about the house. They did catch mice, to be sure, but where they caught one mouse, they caught half-a-dozen little singing birds, or chickens; plundered and committed their nuisances all over the house, meantime, and let the rats—alone. A trap, or two, or a few doses of poison would do up the mouse business better, and more promptly than all the cats we could get, put together, and therefore, we long ago put them out of the house, and got rid of their annoyance. Still women, especially young girls, and mischievous children who want something to pull and and haul about, must have a cat or two, and their indispensable appendages, a lot of scorched-backed, dirty, soot-stained kittens. We are not about to dispute with them on the subject of *taste*, in such companionship of pets, but to enter our protest, with all good housekeepers and mothers, against cultivating a liking for such treacherous and unreliable house protectors.

A barn cat—at the stock and grain barn—a stout, undeniable ten-pound grimalkin, however, is quite another matter. We like him or her, or both, as the case may be. These will usually catch rats—mice always—and will follow them over the beams into the mows, and hunt them constantly. Old Sam, as the boys call him, during the Winter season is always "on hand." At milking time he follows the herdsman round the stable, and when he has had his breakfast of milk, which is always served in a little dish, at one end of the cow stalls, he goes about his business. Biddy, too—for he has a wife most of the time—shares his meals, hunts mice regularly, and now and then bears a litter of responsibilities, which go—somewhere—we don't ask about them—and our barn cat stock increases no further. When Spring comes, and the stock are turned out, they go into the fields, or woods, and are seldom seen, till cold drives them in, or the return of barn vermin invites them. They have no taste for the house, won't go there, and woe be to the woman or child who puts a hand on them; scarred fingers and scratched faces are sure to follow. The only real trouble we have with them is, when they come within reach of the terriers, and then is a muss at once. Sam and

Bidey's fur is sure to fly, while Jack and Nelly are equally sure to wear marks of decided feline discipline on their faces for long days afterwards. Both parties claim jurisdiction of of barn, and stables, and while they both do good service in their line, each equally hates the other with the intensity of a common enemy.

Agricultural Humbug at Washington....II.

PATENT OFFICE SEEDS.

We purposed in this number to continue our remarks, begun on page 40 of last No., in reference to the operations of the Agricultural Department of the Patent Office, but we cheerfully give way to the article below, from the *Philadelphia North American* of Feb. 6th, to which we call especial attention.

After referring to the benefits that may be, and even have been derived from the distribution of seeds, the writer goes on to say:

"....Mr Editor it is so much more agreeable to praise than to censure, that the writer would willingly close his remarks with an expression of his earnest hope that the future efforts of the Patent Office may be most successful—but sir, that office, and the money which sustains it, *belongs to the people*, and whenever its action requires censure, it should not be withheld through delicacy to the official, who directs its expenditure. It was, beyond question, the object of Congress, when making its several appropriations for the purchase of seeds, that the money should be expended in procuring from abroad such varieties of cereals, grasses, esculent vegetables, and, if you please, grafts, &c., as might not speedily be introduced among us through the ordinary course of trade.

The first effort to that end was during the administration of the younger Adams, who caused circulars to be issued to Consuls, Naval Officers on distant stations, and other officers in the service of the government abroad, inviting them to collect and forward to Washington, for distribution, seeds of plants, which they might deem likely to prove serviceable to their country; but as no appropriation had been made to defray the cost, the result was not attended by much success; nevertheless, the plan was praiseworthy.

The invitation, be it observed, was not to send home the seeds of vegetables we already had in profusion—"coals to Newcastle"—but novelties, some of which, it was hoped, might prove of practical value. The effort of Mr. Adams was doubtless the germ of the "agricultural department" of the Patent Office, and had his well conceived plan been carried out, when at a later day an appropriation was made, we might have seen more than *one* profitable result—*especially so, when the extraordinary expense had been incurred of two or more trips to Europe of the agricultural clerk in quest of seeds—the whole of whose expenses might have been saved, had that subordinate possessed the knowledge suited to his position;* and the sum squandered in these *pleasure* trips, could have been legitimately applied.

The writer has been led to call attention to this subject from having recently found on the tables of our Agricultural Society, a collection of vegetable and flower seeds, labelled 'as imported by the Patent Office,' *most of which were well known among us a quarter of a century ago, and some of them probably introduced by the first English colonists.*

But a still more striking evidence of the *ignorance* of the clerk who it is understood directs the importations, was the fact that among the seeds just referred to, *was a variety of turnip, of Pennsylvania origin, which the writer of this communication had himself specifically named. It had found its way to England and been imported by the Patent Office, the subordinate referred to not having knowledge to discriminate.* More than six thousand pounds of this very seed, raised in Pennsylvania, have been distributed since the last harvest by a single Philadelphia house.

There is another view of this subject worthy of notice: seeds of foreign growth are admitted 'free." To this the American seed growers make no great objection, the superior quality of the American giving them the preference. But, whilst other branches of industry are directly or incidentally protected, is it right that our own seeds should not only go unprotected, but the funds of the government be expended in purchasing abroad and scattering broadcast at home, *free of charge*, the identical varieties which our own soil produces. What would be thought of it, if, out of the appropriation for the Congressional library, $10,000 was annually expended in the importation from England of Webster's spelling books, and their distribution, under the pretence of diffusing useful knowledge. Yet, preposterous as that would be, the spelling book of Webster is not more an American production, nor is it more readily obtained in every country store than are many of the varieties of seeds distributed by the Patent Office. Mr. Editor, is not some amendment needed?" L.

Send for the Seeds.

We trust no one will feel any delicacy in sending for the seeds offered by us, nor, as some have done, deem an apology necessary in applying for them, simply because they are offered free. We have provided a supply large enough for all, we trust, (though some rarer kinds that chance to be more largely called for may run short before Spring). We really take great pleasure in scattering them broadcast over the land. A little packet of any kind, if dropped down in any locality, where not before introduced, may prove another centre of distribution, and ere many years be the source of much pleasure, if not of positive and lasting benefit.

Our packages of some sorts are necessarily small, yet, as most of the kinds offered will reproduce seed the first year, there will, in all cases be enough to be the germ of future abundance. Some packages will appear quite diminutive, on first reception, the paper of Cockscomb for instance; yet every parcel, as small as it may appear, contains 200 to 300 seeds, while a dozen growing plants would be all that would be desirable in any collection. (By the way, this seed was so highly commended by a foreign correspondent, that we imported 2 pounds of it, at a cost of $48.) Similar remarks may apply to some other varieties of seeds offered.

Of *Sugar-Cane seed* we have a plentiful supply, having secured nearly 100 bushels for distribution and premiums,* besides the large amount already sent out. We now offer every subscriber who will provide for Postage, or carriage by Express, or otherwise, from one to four ounces (1,250 to 5,000 seeds), and this without regard to the selection of any other three kinds.

Let our readers, then, with as many of their friends as they can still induce to become subscribers, send along for the seeds. We have now started all the parcels applied for by mail, and are daily sending off many hundreds of packages. The Express parcels are not yet made up, but will be forwarded before the 10th of March.

* See large Seed Premium offered on page 96.

Cabbage, and Cabbage Lettuce Seeds

VARIETIES FIRST OFFERED RUNNING SHORT.

In our list of seeds for distribution, we offered the Enfield Market Cabbage (No. 13), and the Mammoth Cabbage Lettuce (No. 15), both described on page 8, January number. Of these, we had imported what we considered a large supply, but almost every subscriber has recently applied for these, and our stock is now running short, and unfortunately we can not get any more without a new importation, for which it is now too late in the season.

To future applicants for No 13, we shall therefore send the "*Improved Silesian Cabbage Lettuce*," a valuable kind, and mark upon the back of all the seed bags containing this variety, a figure—2.

When the supply of No, 15 fails, we shall substitute a *new* variety just received from our enterprizing London agents, called "*Waite's King of the Cabbages.*" From what we hear of this, we hope it may prove a superior variety, and our readers may yet have occasion to thank our London friends for forwarding this new variety for trial here.

Read the Advertisements.

A GOOD TIME TO BUY.

We have seldom, if ever, seen together so large a number of really valuable advertisements as will be found in the closing pages of this number—near seventy in all. It will pay the reader to look them all through. Until we had done so, we were disposed to blame our assistants for receiving so many as to crowd over the 'Basket matter,' part of the Boys' and Girls' Columns, Notices of Books, and some of the Indoor items designed for this month. (The previous pages, 73 to 88, were stereotyped, and partly printed before half of the advertisements came in, or the Indoor department would have been thrown back, to make room for the omitted articles and items.

As it is, we think our readers will be decidedly interested in the business columns, and in fact the advertisements, taken together, answer scores of questions, in letters now before us, to which it is impossible to reply in detail. We know most of the advertisers, and we can scarcely name one to whom we would not send an order for any thing we chanced to want in his line of business.

This Spring is a favorable period to purchase a large supply of Trees, Plants, &c. The financial crisis, last Autumn, nearly suspended all operations, and dealers in these articles, especially, have an unusually large and good stock on hand now, and at reasonable rates. Let the occasion be improved to "fix up" the rural home, and start a good lot of trees and plants for profitable returns hereafter.

AN INSTRUCTIVE ADVERTISEMENT.—A large space is occupied by the old, and we speak understandingly when we say reliable establishment of PARSONS & Co.—Though a business document and paid for as such, at regular rates, it really amounts to something more than an advertisement, since it gives very useful information in regard to the culture, and especially the selection of good varieties of trees, plants, shrubs, &c. Wherever our readers may *purchase*, we advise them to carefully preserve pages 92 and 93, as a reliable guide to the selection of the best varieties Indeed the whole of the advertising pages should be kept as a business guide book.

Farm Buildings.

NUMBER I.

In pursuance of our intention to give some plans and elevations of cheap, convenient, and practicable buildings for farm purposes, we commence the series in this paper. As we intend to continue them throughout the entire range of dwelling, barn, and the various out-buildings which belong to a well organized farm of the Northern and Middle States, and some of them applicable to the Southern as well, our remarks will be considerably and diversely extended before we conclude.

In the commencement we will say, that we intend these plans for the *farmer* mainly—and for him no further than absolute utility, and economy are concerned, consistent with an appropriate expression, and agreeable appearance, coupled with their proper position and purposes. Our Rural Architecture, generally, down to thirty, even twenty years ago, was imperfect in object, and uncouth in appearance. It answered the purpose, after a fashion; but, in the main, was wretchedly out of "order," and mostly inconvenient, both in style, economy, and comfort. Suddenly, a change was introduced, and like all changes brought about by inexperienced hands, with many needed reforms, it had an equal number of absurdities. "Rural" Architects sprang up all over the country. The saw and hammer were thrown by with many a clever carpenter-and-joiner, and they went to planning houses, drawing pictures, and writing books on architecture. The country has been flooded with designs, plans, and all sorts of gim-crackery in the way of farm buildings, and "genteel" country houses, not only for retired city folks, and village people, but farmers, cottagers, and laborers—for the educated and refined, down to the rudest dweller of the back-woods. Plans of log-cabins, even, costing not 50 dollars, and thrown up in a single day by half-a-dozen stout wood-choppers and a pair of oxen, and finished off in another day, have been attempted by the architects aforesaid, and their plans laid down in the books cheek-by-jowl with country palaces costing twenty to fifty thousand dollars; and it is but sheer justice to say that in both architecture and convenience of the "cabin" the "choppers" beat the "architect" out of sight!

We are far from condemning this sudden "improvement" in architectural knowledge and taste, for we admit that it has effected much good. Substantial benefits have grown out of it, and many needed reforms have been introduced, while some standing inconveniences have been abolished, and conveniences substituted in their place, much to the relief of both household, and out-door labor, as well as a telling economy in the material consumption of every-day living in the family. Yet, the disposition on the part of many of the architects is quite as much to show their own skill in invention, as in the *utility* of their structures. Fanciful contrivances, for no possible benefit, are often introduced and commended, when their absence would be all the better for any use the structure could be put to, besides much saving in the expense of building it. Broken lines, projections, and zig-zag angles in the walls; hips, haws, jerks, and scarps in the roofs, costing, perhaps, half as much as the whole house, and good for nothing but to invite leaks and repairs, are the prominent features of the outside; while within, the whole economical and comfortable arrangement is tucked into a corner and sacrificed for a spacious parlor only occasionally used, and the every-day peace of the occupants destroyed for the sake of a little paltry pretension to which they never aimed, nor aspired. Such ambitious 'things' are found perked up all over the country, as though they belonged there, instead of the plain, comely, and appropriate structures, well fitted by their convenience and utility for the purposes of their occupants, and giving that air of repose and ruralty justly belonging to them.

Fig. 1.

LABORER'S COTTAGE—PERSPECTIVE ELEVATION.

Such frivolity in building will not last. The fashion will ere long go out, as men better appreciate *true* architectural art, and a plainer style will be substituted. We do not, ourself, set up for any particular amount of architectural knowledge, or skill; but having lived in a house some years, and knowing somewhat of its requirements for family accommodation, and planned and constructed sundry of them for farm use on our own premises, have some notions of what belongs to their purposes and convenience. Millions of dollars, in the aggregate, have been thrown away within the last dozen years in useless tinsel and ornament on farm and country buildings, which, we are free to say, three-fourths of the owners and builders of them would now gladly be rid of; and when the repairs come round—and not long hence either—they will be disposed of in the substitution of sensible alterations; and in whatever we have to submit, we promise that if we do not altogether gratify the prurient fancy of all those to whom they are presented, they shall not, on the other hand, sacrifice their money without an object, nor prevent them from amendment by their incapacity to admit of it.

We lay down as a postulate, that *beauty*, and *utility* for the purpose intended, are one. Each is compatible with the other, when properly regarded. A thing is not to be taken by itself alone, unaccompanied by its accessories, but in its combination with other things belonging to and inseparable from it. So it is that we shall consider our farm buildings, and proceed to show our plans, with such running remarks upon them as their explanation may call forth.

Commencing at the bottom scale of *necessity* in farm life, and rising in space and expense as we proceed, our first design is that of

A LABORER'S COTTAGE.

We give above the simplest plan of a farm-cottage for a working man and his family—the latter not large, of course. It is, in the main part, 22 by 14 feet, with a lean-to 8 feet wide on the rear, and projecting 4 feet at one end; all covered under one roof. The elevation, from the bottom of the sill, to the top of the plate, is 12 feet, in the main part, and seven feet on the rear of the lean-to behind. The roof is a "quarter pitch," or 3½ feet, being one foot perpendicular rise to four in the width of building. This pitch is sufficient to give a good flow of water down the roof, but it may be increased to one-third, or a rise of one foot to three in width, if higher chamber room be necessary The roof is a hanging one—that is, it projects 18 or 20 inches over the walls of the house, so as to thoroughly protect and shelter them from storms and weather, besides adding greatly to the warmth, comfort, and appearance of the tenement, and carrying the water completely off from all drips along the walls, and throwing it to a distance from the sills and underpinning. Just above the edges of the roof, also, can be placed gutters to carry the water to one end of the house and throw it into a cistern, if necessary. This style of roof, having no breaks, or angles in it, is lasting, and if well laid, leak proof—which, if broken by modern hips and angles, it would not be.

The sills are 8 inches square, and the joists 3 by 4 inch common scantling, laid crosswise, and 14 feet long; or, they may be 2 by 6 inches laid edgewise, and of either size, not more than 2 feet apart. The lower rooms are 8 feet between joints, leaving a chamber of 2½ to 3 feet perpendicular wall below the plates, and the hight of the roof above—sufficient for such a tenement. The lean-to in rear is but a shed of course, without chamber floor, the roof running continuously down, with long rafters over its back wall. This is shown in figure 2, as the end elevation is not shown in the perspective. Yet, it is covered in with the same material, and in the same manner as the body of the house. It is a "plank" house; that is, built of inch or 1½ inch 12 feet unplaned boards or plank, placed up and down perpendicularly, and battened over the cracks with 3 inch strips of inch boards; and if a better finish than this be required, matched boards or planks, may be substituted, with battens over the joints, or clapboards, either planed or rough, can be laid over them; and, if the covering be planed, painted; if not, whitewashed.

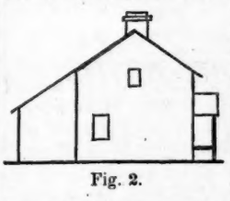


Fig. 2.

INSIDE ACCOMMODATION.

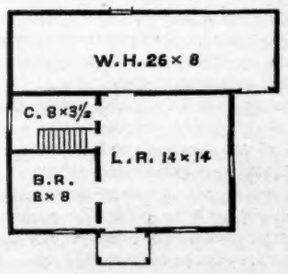


Fig. 3—GROUND PLAN.

The front door opens into a living room 14 feet square, in which is a stove for cooking, and the pipe runs up through the chamber floor into the chimney, standing either on the floor, or hung by a gallows suspended from the rafters. If the latter, the pipe goes into it through a thimble or

crock inserted in the chimney, by an elbow from its top. At the left of the entrance door, is a bed room 8 feet square, which may be entirely separated by a close partition and door, or may be an alcove simply, separated by a curtain, so as to be, in reality, only a recess for a bed, table, and glass. Next this bed-room is a flight of stairs 3 feet wide, leading to the chamber. Next to, and under the stairs, is a family "buttery," or provision, and dish closet, 8 by 3½ feet, with a window, and shelves, as convenience may demand. A door leads back into the lean-to, or shed, in which may be an outer cook-room for Summer, a bed-room, or whatever else is required, and a wood-house, with a door leading outside at one end, as shown in the plate. We have not partitioned this in the plan, leaving it for the builder to appropriate as may seem best.

The windows of the cottage are "hooded;" that is, sheltered by short strips of board 10 or 12 inches wide, sloping outward, supported by brackets at the end to ward off the violence of storms, and keep the upper joints dry, besides giving a sheltered, cosy look to them. So also, is the outer lean-to door hooded in the same way, only that its hood is 3 or 4 feet wide, and the brackets in proportion. A small stoop or verandah is thrown over the front door, say 6 feet wide and 4 feet deep, with a seat on each side. All these outer appendages give the cottage an air of completeness, and repose, which, aided by a few climbing vines, or shrubs, make it all that can be desired as a rural cottage.

We will add, that if the cooking stove be removed into the lean-to for Summer use, the pipe can run out through the roof above by displacing a few shingles, and inserting under the ones that are above it, a zinc plate, through which the pipe passes—a lip being turned up all round, except on the lower edge, to carry off the water; and when the stove and pipe are removed, the plate can be taken out, and another *whole* plate put in, or the shingles replaced, so that no leakage can occur.

COST.

We built one like this on our own farm two years ago, at an expense, all told, of $160, without porch to the front door. It was rough clapboarded outside, without lath, or plaster inside, and is very warm, and comfortable, accomodating a family of husband, wife, and three children, where they live snug, and tidy as need be, and want no better. $200 to $250, will finish it complete as in the plan, with matched and plain boards, battened and painted without, and plastered within in a plain manner. There is no cellar under it, and only a plain stone, or block underpinning.

Aside from a laborer's cottage, simply, a house on this plan can well be constructed as the *nucleus* for quite an eligible farm-house in the future, by giving it larger dimensions at first.

We have been frequently applied to by letter from sundry of our subscribers for a plan of such kind, which, answering well for a beginner, will as he progresses in means, and demand for more room, enable him to enlarge it without great expense, and yet save it from the uncouth appearance which houses, not commodiously constructed at first, are so apt to show afterwards. We shall endeavor to present such an one in our next number.

Of the *position*, or site of this cottage, we need say but little. To give it agreeable effect, it should stand at least twenty feet back from the road, or lane leading past or to it, and the yard set with trees, and more or less shrubbery, which the occupant should be compelled to take care of. The site should be dry, and if possible, somewhat sloping, to carry off the falling water, and melting snow. The laborer should be as comfortably housed as his employer, and all the little, cheap appliances be added which can render him and his family cheerful, and contented. We have found, on many year's trial, our account in this, and as a matter of principle, can well recommend it to every employer. An apple tree, or two, a few currant bushes, shrubs, and roses, costing little, or nothing, or spared from his own garden, encourages the laborer to occupy his spare time in their cultivation, or draws the attention of his wife and children, attaches them to their home, and keeps them away from the temptations of idle, or vicious companionship, and draws their good feelings towards their employers in a way that *tells*, in more results than one, to his own interest, and satisfaction. We have spent many a leisure hour, after the toil of the long Summer day was over, in friendly and cheerful converse with one and another of our laborers, and their families, beside the outer door of their cottages in the mild evening twilight, with more grateful satisfaction than with many a traveled pedant, or a group of learned pretenders.

Culture of the Soil more Healthy than Other Pursuits.

Farmers are by no means exempt from the thousand ills of life. They sicken and die, as well as other people. Husbandry, as a calling, is a healthy one; yet there are exceptions to the general rule. Farmers may overwork themselves, may wear unsuitable and insufficient clothing, may be uncleanly in their persons and habits, may indulge undue anxieties about their affairs, and may give themselves up to the control of passions which are fatal to the health of every man. And if they transgress any of these laws of health, the fact that they are tillers of the soil will not save them from the penalty due to their missdeeds.

We maintain, however, that this pursuit is eminently *favorable* to health and longevity. It furnishes exercise in the open air, which is one of the chief promoters of good health. All professional authorities and the experience of mankind at large, agree as to the value of this medicine. Abundance of the choicest food, the finest clothing, superb dwellings, education, polished society, and all other good things of life combined, are no substitute for this. With them all, and yet without this, the poor body will wither away, and fall into a premature grave.

The business of the farmer calls him into the open air at all hours of the day. If there is any virtue in early rising and the morning air, he gets it. If there is any evil in the damps of the night air, he generally escapes it, for his labors commonly close with the setting day. It is a rule of health to expose oneself to the open air every day in the year, regardless of clouds and storms. A faithful farmer can hardly shut himself within doors an entire day, unless confined there by sickness. Even in the most leisure seasons of the year, and with abundance of hired workmen, he wishes to be abroad, looking after the welfare of his stock, his buildings and crops.

The labors of the farm furnish exercise of the best kind. It is not labor in a confined shop, nor the use of one set of muscles exclusively. The arms, chest, feet, legs, all come into requisition. And the labor is so varied from day to day, as to afford a pleasing alternation of exercise and rest to the several members of the body. As a general rule, too, this labor is not exceedingly wearisome. Farmers, like other men, may lose their balance and toil imprudently, at times, as in haying and harvest; but they need not overwork themselves. The general fact still remains, that the labors of the farm are pleasant, not burdensome and injurious, and are well adapted to invigorate the whole frame.

Temperance in living has much to do with the preservation of health. And by this we mean, not only temperance in drinking, but also in eating; abstinence from unwholesome food, as well as from alcoholic liquors. It cannot be denied that the use of intoxicating drink is much less common among farmers than among other classes. The circumstances of their life seem to forbid such indulgence. They are away from scenes of temptation; their passions are little excited; their work cannot proceed if body and mind are not under control; they must either give up their calling, or renounce the cup. The diet of the husbandman is generally simple and wholesome. The rich and highly concentrated dishes of fashionable and epicurean tables, the mysteries of French cookery, seldom find their way to his board. In their place, he has the fruits of the earth in their natural state, and in abundance. He is not without luxuries and delicacies, but they are, for the most part, those which his own industry and skill have produced from his farm and garden. He has them in great variety, and in their highest state of perfection and freshness His food is eaten, too, at suitable and regular hours, and under the impulse of a healthy appetite, not one created by artificial stimulants.

Mental excitement is a prolific source of ill health. It is a common saying that a fit of anger is about as bad in its influence on a man's longevity, as an attack of fever. Excited expectations or great disoppointments are well known to wear upon the nervous system, and to derange the health. The constant anxieties and cares of trade, manifestly operate in the same way. From wearing excitements of this sort, the agriculturist is mostly free. He is not, indeed, without his cares. Late Springs, and early Autumnal frosts, untimely rains, drouths, and the uncertainties attending the ingathering of crops, give him no little anxiety. Yet these do not corrode the heart, like the cares of trade, the thousand annoyances of intercourse with selfish men; they are not so constant; they are almost remitted during the Winter season; and they are mitigated, if not wholly counterbalanced by the scenes of quiet and repose, amid which the farmer's life is passed.

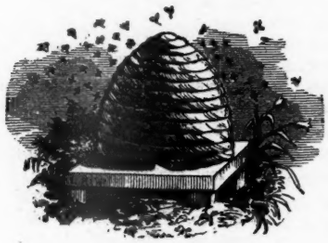
We have often contrasted the history in this respect, of different members of the same family, some of whom left their country home to engage in business in the city, while others chose farm-life. Sometimes the tradesman succeeds in business, and prosperity and health crown his days, even to a good old age. But more often, the wear and tear of business, disappointments and losses set over against successes and accumulations, sap the foundations of health, and dyspepsia, or consumption, or nervous affections in their various forms, creep in unawares, and embitter life and cut it prematurely short. As a general fact, grey hairs and wrinkles show themselves much sooner upon the tradesman than upon the farmer.

We do not mean to go into a labored argument on this subject; but in closing, we want to fire a little volley of statistics, before which nobody but a farmer can stand. From a late annual Report of the Secretary of the State of Massachusetts, containing returns of marriages, births and deaths in each town, the following facts have been gathered. The result has been made up from the

returns for nine years and eight months, of persons dying, over twenty years of age; and the comparison is drawn between agriculturists and persons in the leading mechanical trades:

Occupations.	*No of Deaths reported.*	*Average age at Death.*	*Average length of life after 20 years of age.*
Agriculturists,	7,735	64.03	44.03.
Carpenters,	1,127	49.41	29.41.
Shoemakers,	1,839	43.10	23.10.
Blacksmiths,	541	51.62	31.62.
Painters,	375	42.00	22.00.
Masons,	273	48.32	28.32.
Machinists,	268	37.15	17.15.
Tailors,	192	43.87	23.87.
Operatives,	173	33.17	13.17.
Printers,	91	36.46	16.46.
Hatters,	88	53.87	33.87.
Tinsmiths,	52	41.44	21.44.

In the above Report, the deaths of 7,781 mechanics are given, (46 more than of farmers,) whose average age is exactly 46 years, while that of farmers is a little over 64 years—showing a difference of 18 years in favor of agriculture. Speaking statistically, it appears that a farmer at 20 years of age may expect to live 44 years, and a mechanic only 26. Among mechanics, carpenters and masons who spend much of their time in the open air, live nearly 50 years, while machinists, printers, and operatives, live less than 40 years.



Wonders of the Bee-Hive.

NUMBER IX.

One of the wonders of the bee-hive is the beautiful white virgin comb, too delicate to be handled without injury, which soon makes its appearance when a colony of bees have taken possession of a new home. The rapidity with which it is formed has often amazed us, bringing to mind the story of the wonderful palaces produced by Aladdin's lamp. We have already spoken of the form of the cells which the bees instinctively adopt, and have shown how admirably everything is adapted to secure strength, ease of access, utility and economy of material. But what is the substance which they employ and where is it obtained?

When we put a swarm of bees into a hive, and after confining them for a day or two, find several sheets of wax fairly started, with no possibility of assistance from without, it seems more like "making bricks without straw" than anything we know of. Yet being firm believers of the truth of the old saying that "from nothing, nothing comes," we are not willing to let the mystery pass unexplained.

It was formerly supposed, and indeed some people even now believe, that bees collect wax from plants or flowers, in the same manner as they procure honey. And this is a very natural conclusion when the bees are seen bringing loads of pollen into the hives, on their thighs. But the incorrectness of this opinion was shown long ago by Huber, concerning whose researches the Edinburgh Philosophical Journal in 1833 remarked "that nothing of any importance had been added to the history of bees since his time; and naturalists of unimpaired vision have nothing of consequence to subjoin to the observations of a brother who was deprived of sight." More recently, new discoveries have been made, but some facts that he established can never again be disputed.

The wax of which the honey-comb is made is found to be a *secretion* of the worker bees, after being gorged with honey; or a substance produced in their bodies from their food and escaping to the surface *somewhat* in the way that perspiration makes its appearance on our limbs. When the wax is first seen however, it is not in the form of drops, but of small white scales, looking like small pieces of skin.

Fig. 11.

The abdomen of the bee is formed of a succession of rings overlapping each other, and these scales of wax are found in pairs, slipping out from the pouches where they are formed, as if from under a man's vest. This is very well illustrated by our engraving, (Fig. 11.) The production of wax seems to require certain favorable circumstances, such at least as an abundance of food, a high degree of animal heat and a state of repose. In the case of a new swarm, they are said to take their departure from the hive, with their honey-bags loaded; and clustering together in a thick mass, they raise the temperature to a degree that would not be possible if each bee started a home on its own account. Sometimes but a few hours elapse before the supply of wax begins to appear, and before a full day has passed, considerable advance will be made in comb building.

Often the production of wax is so great that the scales are allowed to fall upon the floor of the hive. Their shape and appearance may be learned

Fig. 12.

from the engraving, (Fig. 12). It will be seen that they are of oblong form; the longer diameter being about one-tenth of an inch. How these scales are detached from the pouches where they are formed, we are not able to say. Some writers speak of their being taken off by the hind legs, and transferred to the mouth. Mr. Langstroth, says "the bees seem to aid its liberation from their bodies, by violently shaking themselves, as they stand upon the combs." These thin delicate scales being made soft and pliable by the heat of the hive, are moulded by the bees, and applied to the roof of the hive, in the lines of direction which the combs are to follow. The bees may be compelled to build from the floor upwards, but in that case, they work at a great disadvantage. The sheets of comb are placed parallel to each other, and any variation from a direct line in one of them, however occasioned, is likely to be followed in the others.

The cells on the lower edges of the comb are not at first made as deep as those above them, the thickness of the sheet, diminishing somewhat like a double convex lens. But as the work advances these cells are made of full size, and if the comb is attached to the bottom of the box or hive, the lowest part has the same thickness as the rest. Sometimes, however, the uppermost cells are made of unusual depths for the storing away of honey, and the lower ones, reserved for brood, are confined to narrower limits. It seems to be necessary for the comb to have this shape like a lens, while its construction is going on; and if a sheet of comb is broken square off, the bees trim it down at the edges before proceeding to restore its original dimensions. Empty comb is extremely light and the sides of each cell in new comb are said to be so thin that one-hundred-and-eighty of them would be necessary to make one inch in thickness. When the brood cells have been occupied by many generations of bees, the accumulation of cocoons adds much to the weight of the comb, and the results of some experiments with old brood comb, show that the cocoons sometimes weigh eight or nine times as much as the wax which surrounds them.

The consumption of honey in the manufacture of wax is surprisingly great. It is thought that twenty pounds are consumed in making a single pound of comb. Hence the utility of giving to the bees whatever empty combs we can secure, and saving all the expense of manufacturing new wax. If a swarm can be saved the expenditure of twenty pounds of honey, when they first "go to housekeeping," it is so much clear gain to their owner. It is a question too, whether it is not good economy to guide the direction of the combs so as to save a useless expenditure of wax. Those who have had occasion to turn hives over, or even to open boxes of honey, know how often the sheets of comb run obliquely. And sometimes in Mr. Langstroth's hive, which is designed to bring each sheet of comb upon a single moveable frame, we have found it difficult to keep the combs from crossing to other frames. But it is very evident that attachments of the combs to the side of the boxes involves some waste of wax. Hence it is not good economy to have comb made in small or in round receptacles; and it is better that in a long box, the combs should run with the length, rather than across it, and parallel with the sides rather than obliquely. Whatever is desired in this respect can be accomplished practically by fastening pieces of guide comb into the hive before the bees enter it, and by taking care that the hive stands perpendicularly on its platform.

It is yet a question whether any substitute can be found for the honey-comb, which will save all expenditure of honey, and be proof against the attacks of the bee-moth. We think there is ingenuity enough in the land to accomplish this work, and confidently expect that we shall at some time have the pleasure of announcing that artificial honey-combs have been successfully introduced into bee-culture.

Improved Stable Floors.

To the Editor of the American Agriculturist.

Some years ago my stable was laid with a plank floor. My horse, a late purchase, (I keep but one) became lame. An experienced horseman attributed it to bad shoeing. I had the shoes removed, and a few days after replaced, but the lameness, which was in the forefeet, continued. Upon a careful examination I came to the conclusion that dryness was the cause of it, I then had recourse to stuffing with moist manure at night, which entirely remedied the lameness. But I found this troublesome, and apt to be neglected, when the lameness was sure to return. I then took up the plank in one stall and filled up to the floor with gravelly clay. But I did not like this owing to the soaking of the clay with the droppings of the animal. I then removed the clay for about two-thirds or three-fourths of the length of the stall, and laid down plank for the part removed even with the original floor leaving the horse to stand with his forefeet on the clay. This has been continued for more than a year, and answers an admirable purpose My horse requires no stuffing of the feet, and keeps free from lameness. E. H. VANUXEM.

SHREWSBURY, N. J., Feb. 8, 1858.

Laziness travels so slowly that poverty soon overtakes her.

American Cattle—No. II.

[*Continued from page 45.*]

WHERE IS THE PROPER HOME OF SHORT HORNS?

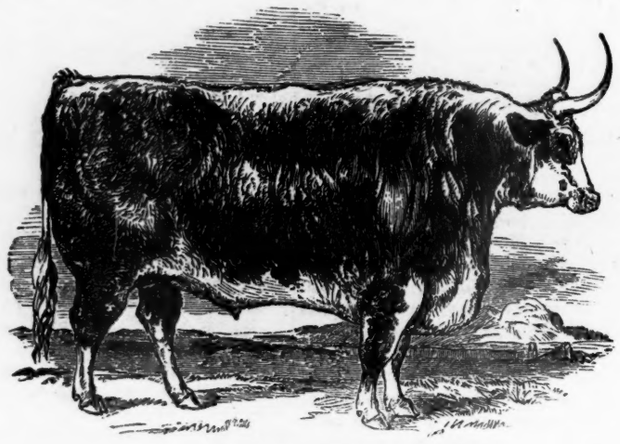
Where rich land, and abundant forage abounds, and not elsewhere. Physically, the Short Horn, compared with the lighter breeds, is a sluggish animal. Consequently its food should be reached with little labor, and where it can readily graze its full, then lie down to ruminate, and digest it. As to climate, they succeed in every part of the United States north of the Cotton-growing regions, and in them, less perhaps from the absence of proper grasses, than their enervating heat. They flourish in the cold latitude of Montreal, and Northern Maine, with abundant food, and warm shelter and they will probably thrive anywhere that nutritious grasses, grains, and roots are produced, and comfortable shelters furnished. The rich lands throughout the States in the Valley of the Mississippi are, almost without exception, peculiarly adapted to them ; while in many other States, but comparatively small sections are fitted for their profitable adoption as farm stock. Yet in their grades, or crosses upon the lighter breeds, for the dairy, and other purposes, they may serve an admirable purpose on thinner soils. As our weak lands grow richer, forage becomes plentier, and our agriculture is improved, the Short Horns can be adopted with advantage.

WILL THE SHORT HORNS CONSTITUTE OUR DAIRIES?

Most certainly, if they ever become plenty enough and cheap enough for that purpose. But that their blood may be infused into our native stock, and to such extent that all the essential excellence of the Short Horn, with her imposing appearance, and high milking quality, can be attained, is beyond a question. Such will be, as in many places they now are, among our best dairy cows. The only effort required to effect such result is, to choose a well-bred Short Horn Bull from a good milking dam, and cross him on to well selected, good milking cows of the common breed. Then reserve the best heifer calves of their produce, and following the same cross upon them in succession, and to their produce after them—always using a thorough bred bull—and the object, from the first cross, or half-blood, up to as near an approximation to the pure blood as possible, is attained. For all practical purposes, a herd of dairy cows, so bred, can be made as available as when the pure blood is resorted to alone, which, at the prices the pure blood will command for a long time to come, can not be profitably adopted.

THE QUALITY OF OUR AMERICAN SHORT HORNS

is probably quite equal, in the *average*, to those of England. A large majority of our importations have been selected with care and good judgment from the most celebrated English herds, at the time. The first Short Horns of any note were brought into Kentucky in 1817. These were followed by several animals brought into Massachusetts, in 1818-19, and into New-York, Pennsylvania and Maryland, and Massachusetts again, during several successive years. In 1834, a very considerable herd were imported into Ohio, succeeded in each year, up to 1840, by numerous arrivals into New-York, Pennsylvania, Ohio and Kentucky. In 1849, with an occasional one during a few previous years, importations recommenced, and during several years, up to the present, numerous, and large importations by associated companies, and individuals, have been made of selections from the best, and most celebrated herds in England, Scotland and Ireland, whose lineage traced back to the remotest records and traditions of Short Horn ancestry. Many animals



HEREFORD FEEDING OX. *

have been purchased and brought out without regard to cost, so that they combined the highest blood and the best quality ; and they were bought against the most eager competition of rank and wealth in England, by the spirited and liberal breeders of the United States. They are now here, on this side of the Atlantic, in the hands of those who duly appreciate their value, and will breed them onward to the full measure of their excellence and fame. We have now many established herds, with pedigrees recorded in the American Herd Book, three volumes of which have been published, containing the pedigrees of near seven thousand American Short Horns, and equal in completeness, and information to the Herd Books of England.

We might interest our readers by noticing individual herds, and animals or by giving the names of some of our prominent Short Horn breeders ; but intending in these papers to speak only of the different breeds of cattle themselves, we leave them out for the present.

THE HEREFORDS.

Occasional specimens of this variety have been brought into the United States since early in the present century. Two or three were imported into Kentucky by the great Statesman Henry Clay of Ashland, in the year 1817, or 1818 ; a bull or two came into Massachusetts a few years later. These left no results in the way of thorough bred stock—Mr. Clay's being absorbed into Short Horn, and native grades, long ago gone out of existence, and those of Massachusetts, after producing some excellent crosses, running out, and finally lost in their infusion with the "common" stock. In 1839-40, a considerable herd were brought out from England by W. H. Sotham, which became the joint property of himself, and Erastus Corning Esq., of Albany, N. Y., and were for several years kept and bred on the farm of Mr. Corning, near that city. Within a few years past, further imporations have been made by Erastus Corning Jr., of Albany, George Clark, of Otsego Co., in this State, and an English farmer near Elyria, Ohio, and a few, we understand, into Canada. Other small importations may have been made by other parties, but the above are the only ones that now occur to us. Yet, as their numbers by multiplication have become considerable—chiefly, however, in the State of New York, where they are decided favorites, with their breeders—they may now be considered an established breed of cattle in the United States. Of the origin, and history of the Herefords, we have been able to glean but little. Youatt, the principal English cattle historian, gives but a meagre and one-sided account of them. According to him, or so far as record and tradition has been ascertained, they are claimed to be an aboriginal race, mostly confined to the county which gives them their name, and the adjacent districts.

DESCRIPTION.

In size, they rank next to the Short Horn, averaging somewhat smaller, and of a lighter figure, and more active in movement. Of their color, Youatt says : "Some of them are brown, and even yellow, and a few are brindled (roan ;) but they are principally distinguished by their white faces, throats, and bellies. In a few, the white extends to their shoulders. The old Herefords were brown, or red brown, with not a spot of white about them. It is only within the last fifty or sixty years (this was written in 1833,) that it has been the fashion to breed for white faces. Whatever may be thought of the change of color, the present breed is certainly far superior to the old one."

To this we will add, that those which have been imported into this country, have, with a few exceptions of mottled fronts, been white in the face, with red bodies, or with the white extending along the backs, and bellies, to the extremities ; sometimes, a striped roan, and in one instance we have seen a pure white, except red ears.

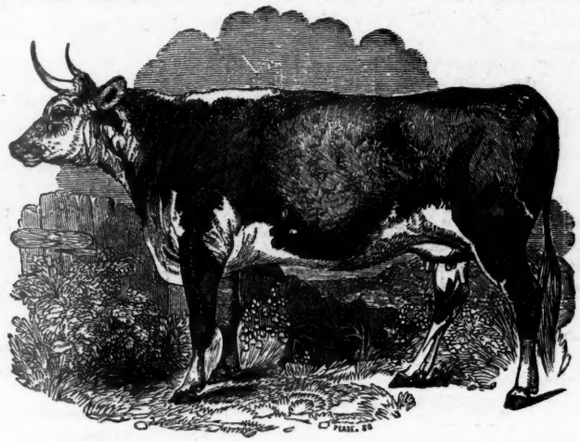
Their horns are large, long, and widely branching, gracefully turned upward, and outward, giving them a high head, a bold front, and an imposing appearance.

In its body, a well bred Hereford is good, yet hardly so fine in the bone as the Short Horn. The head is of medium size, and the eye lively ; the neck in fair proportion, with a tendency to dewlap ; the body long, level, and well spread, with capacious hips, an excellent loin, and a deep flank. The shoulder is more slanting than the Short Horn, less open, yet widens below, so as to disclose a prominent brisket ; well spread ribs, giving a round barrel, and an excellent carcass. The Hereford stands rather higher on the legs than the Short Horn, but not out of good proportion. The leg bones are strong, and not coarse. The skin is mellow ; the hair soft, and wavy, and the animal usually a good "handler." Indeed, a good Hereford is rarely surpassed in its handling quality by one of any other breed. On the whole, a fine animal.

THEIR PROPER PLACE.

Anywhere, with enough to eat, as a grazing steer, or a breeding cow. As a beef producing breed, few, if any cattle, possess more growth,

* For the two illustrations of Herefords, we are indebted to Youatt & Martin's work on Cattle, edited by A. Stevens, and published by A. O. Moore, New-York.



HEREFORD COW.

according to their natural size, or take on flesh more kindly. They mature early, hardly so early, perhaps, as the Short Horn, although their English advocates claim that they do so. Their beef is of excellent quality, well marbled, and fine in grain. They are hardy, living in all climates where other English cattle do, and thriving on lighter soils than the Short Horns, yet suiting rich lands, and abundant pastures. They will thrive on any good soils, and pay well.

AS A WORKING OX,

the Hereford is unsurpassed, in his good size, strength of limbs, and honesty of labor. We have seen no finer specimens of working oxen than in some mainly of Hereford blood. For heavy labor, they can hardly be surpassed, and seldom equalled.

AS A DAIRY COW,

the Hereford, compared with others of good milking breeds, is inferior. This quality is not claimed for her in England, and we have as yet seen no evidence that she is a good dairy cow in America. We have met with an occasional one that gave a fair yield of milk. Her milk is usually of excellent quality, but inferior in measure, and scant in the time of its continuance. She gives enough to raise her calf well, and for a sufficient length of time to turn it to grass; but beyond that we can hardly venture to warrant, and the weight of testimony we have received is confirmed by personal observation.

TO SUM UP.

The Herefords have failed to achieve that measure of popularity in this country that their advocates anticipated. That they are excellent grazing cattle, and capital working oxen, we have asserted. That they have held a close competition in the fat cattle shows of England, is beyond a question; and that, on the score of profit, in our wide grazing regions in the Western States, they may hold a close competition with the Short-Horns we have little doubt. But, as yet, they have made little, or no impression there, although some of the best specimens have been exhibited at their great Cattle Shows. Their time for a fair trial may not yet have come. That it may arrive, and speedily, too, we hope. Could the cow, in her feats at the pail, compete with the Short-Horn, our hopes would be stronger, but, in her deficiency there, and the less imposing style and figure of the Hereford, with the manifest popularity of the Short-Horn already attained, wherever the soil and climate is favorable, they will hardly be successful competitors.

In our next number we shall proceed with a description of the Devons, and afterwards extend our remarks and illustrations to the other principal breeds.

City Folks and Villagers, Keep a Cow!

AND HOW TO FEED ONE.

How long have our ears been pained with the *truthful* reports of the great increase of sickness and death, especially among children, resulting from bad milk—swill-milk from diseased cows fed on distillery slops; milk rendered unfit for human use by a large admixture of chalk; milk brought from a long distance in wagons, and over railroads, and spoiled, or ready to spoil before it reaches the consumer; mixed milk from a score of cows, some of them sick, some fed on one kind of food and some on another. These complaints are more frequent in our large cities, but they are not confined to these, for there are few villages where a majority of families can obtain a full supply of fresh, pure rich milk.

All agree that really good fresh milk, from healthy and properly fed cows, is the best possible food for children and youth. But *how* shall we get it? This question has been asked of us many times lately by subscribers in this metropolis. We know of no better answer than to say

KEEP YOUR OWN COW.

This is, perhaps, not so difficult and expensive a matter as you may imagine; even a good cow costs comparatively little at first. She requires less room than one would suppose; and she will almost invariably pay her keep and a profit in milk. Let us give an example:

A nelghbor of ours, a poor widow, has a small, snug built cow, *farrow*, (which is a valuable requisite in a cow furnishing milk for young children.) This cow cost $40. To keep her, aside from stable rent, costs about $1,50 per week, for good hay, ship feed, and succulent matter, such as cabbage leaves, turnips &c. She calved eight months since, and now averages six quarts of excellent rich milk daily. This sells readily to the neighbors for six cents a quart, making $2,52 worth of milk a week, which is equivalent to $1 a week, or $52 a year for the trouble of keeping, or $12 over her cost. Of course, in Summer, with green food, she gives much more than this. A part of last Summer she gave 14 to 18 quarts of milk daily.

Now this cow has no more room at present than could be obtained by nine-tenths of the wealthier people of most cities and villages. With the usual help, the trouble of keeping would not increase the family expenses. And what is a few dollars extra, when you are paying hundreds, perhaps, every year to promote the health and physical as well as mental developement of your offsprings?

HOW SHALL WE FEED THE COW?

ask several city readers of the *Agriculturist*.

Ans.—If not short of storage room, procure a small load of *loose* hay, as brought to market on wagons; the quality can be better seen than when compressed into bales. If cramped for room, get a few bundles of baled hay. A straw or hay cutter of moderate size costing from $3 to $6, will be requisite. Straw or corn stalks will answer very well as an occasional substitute for alternating with hay.

Procure at a feed store, a few bags each of ground feed (corn and oats ground together,) and as much shorts, (wheat bran,) and you have all that is really necessary. It is advantageous to give a little green food, such as turnips or potatoes occasionally. Saw a barrel in two, for a couple of boxes, one to mix and the other to feed in. Cut a quantity of hay and mix about *half a bushel* of it with *three quarts* of the ground feed, and as much of the shorts, wetting it until the meal adheres to the hay. In very cold weather it is better to heat the water a little. Feed a "mess" of this kind and amount to the cow in the morning, and as much more at evening, and fodder with dry, uncut hay at noon.

Give as much pure soft water to the animal, twice a day, as she will drink. It often happens that a quantity of turnips, carrots, parsneps, cabbages, or beets, are left on the hands of vegetable dealers which can be cheaply purchased. They form a valuable addition to the "mess," cut and mixed with it.

It is also better for the animal to have an occasional change of diet. Carrots, especially, are very good for stock of all kinds, and may be fed to milch cows without affecting the milk unfavorably which turnips will sometimes do when fed in large quantities. When turnips are fed they should be given at, or just after milking, as there is then less danger of their giving an unpleasant taste to the next milking.

A cow provided for as above, with her apartments kept clean, and neat, and well ventilated, will furnish a large supply of nice, rich, *healthful*, milk to say nothing of cream for the coffee. And unless you give an enormous rent for the small space of ground she must occupy as stable room, "*she will much more than pay her way.*"

The Next Hay Crop.

To the Editor of the American Agriculturist:

As I am deeply interested in the hay crop, my farm being almost entirely devoted to it, will any of your correspondents please enlighten me on the following points.

1. When the ground is bare of snow during the Winter, has the hay crop generally proved less than when the ground was covered with snow?

2. Or does the hay crop depend entirely on a due distribution of warmth and moisture, from the opening of Spring till it is time to cut the grass?

We all know that snow to a moderate depth, acts beneficially upon all vegetation in three ways. It keeps the earth warm, protects the roots of grass and grain from the cold and blighting winds, and brings down a certain amount of ammonia, which, as it melts, is left in the soil to fertilize it. Is not snow more beneficial during the freezing and thawing months of March and April, than the steady freezing of Winter? Q.

Nissiquoe, L. I., Feb. 13, 1858.

My experience in Chicken Culture.

A NEW-YORKER IN THE COUNTRY—BORROWING A CAPITAL TO START WITH—HOW POULTRY PAID, ETC.

To the Editor of the American Agriculturist:

On the first day of February, 1857, I was lawful owner of three hens eighteen months old, twelve pullets from six to nine months old—all of mixed and undistinguishable parentage—and two fine chanticleers, one a black Spaniard of pure descent, and the other, a handsome grey quadroon Shanghai, who proved to be "Cock of the walk," and Master of the Hen-house.

For this stock, with the exception of my Spanish gentleman, I was indebted to the kindness of a neighbor, and my disbelief of General Jackson's famous assertion that, "those who trade on borrowed capital ought to break," for on my annual Summer migration from New-York to this place two or three seasons ago, I bought of my aforesaid neighbor, one dozen of eggs, and solicited the loan of a sitting hen, which was not only accorded me, but I was gratuitously offered a second dozen of eggs, on condition that I would borrow another incubating matron—a condition that I found no difficulty in agreeing to. My success was complete, and the hens, after fulfilling their maternal duties for a reasonable period, were returned with many thanks to their benevolent owner. From this novel beginning proceeded the stock, whose statistics I am about to record.

The Winter of 1856-7, was the first cold season that I had ever spent in the country, and for amusement during the dull season, I noted daily the number of eggs produced by my hens, one of which I must mention died early in the season, two were brought to the spit in July, and two were otherwise disposed of, so that by the first of September, but ten remained.

During the nine months from the first of Feb. to the the 31st of Oct. inclusive, I counted 1253 eggs, and allowing the average number of hens during this period to be thirteen, each hen laid 96 eggs and a fraction, besides bringing up each a brood of young chickens. The following is my monthly account of eggs during the whole year, including those laid by my Spring pullets, of which I kept a separate account for three months, when finding it troublesome to distinguish them, I merged both accounts into one:

	Eggs.		Eggs.	
February	112.	August	161 and 19	Pullet's eggs.
March	76.	September	111 and 123	Pullet's eggs.
April	176.	October	79 and 205	Pullet's eggs.
May	173.	November	139.	
June	114.	December	69.	
July	231.	January	80.	

making a grand total of EIGHTEEN HUNDRED AND EIGHTY-EIGHT EGGS, which, from all I can learn is a much larger yield than any of my neighbors can boast, and so well distributed, that not a day has passed throughout the year without the accompaniment of a fresh laid egg.

Of the above, 156 were "set" for hatching, and the result has been the rearing of 106 healthy chickens. Some of my setting hens met with the usual accidents; one had eleven eggs taken from under her by rats or other vermin, leaving only two to be hatched, and some of the young broods were thinned by casualties unknown; but during the whole season I had neither a sick hen, nor a sickly gaping chicken.

As each hen came off with her brood, she was placed in a coop, tight on three sides, with slats in front, in a dry situation, but on bare ground, without straw. She was here confined about ten days, after which she was suffered to run at large with her chickens during the day, in clear weather, that is, as soon as the dew was thoroughly dried. I believe no hen continued with her brood longer than six weeks, and several left them at the close of the fourth week, and in some instances I noticed that the hen commenced laying again, while still running with her chickens.

The food given to them was coarse Indian meal, mixed rather stiff, three times a day, and during the fourth week dry cracked corn was generally substituted; and I had the flattering assurance from my friends that no farm yard ever presented a finer, healthier looking lot of chickens.

One speckled hen, of a delicate, bluish grey color, has done remarkably well, having between the first of April, and the first of October, hatched *three* broods of chickens, and since that period laid two litters of eggs, neither of which (anticipating a cold winter) I allowed her to sit upon. She has proved the most valuable hen on the premises.

The older fowls during the Spring and Summer, were kept confined, with the exception of about an hour before roosting time, when they were privileged to range at large. The younger ones roosted in the open air until November, when they were comfortably housed, and from the fact of their having previously laid so freely, I anticipated a larger supply of eggs during the Winter months, than I have received, particularly as they have been well fed with corn, buckwheat, potatoes, and a fair proportion of raw meat. Still I am satisfied that they have proved a profitable crop, although I am unable to state accurately what has been the cost of their feed.

In this town during the past twelve months, eggs have ranged in price, from 18 to 30 cents per dozen—the greater part of the time commanding 20 cents, while dressed chickens have brought from 12½ cents to 16 cents per lb.

We commenced using chickens for small *broilers* early in July, and up to the present date, have dispatched fifty-three, weighing in the aggregate, *when dressed*, 151 lbs.—seven killed at one time averaging over 4 lbs. each. I have still on hand the old fowls, and fifty-two chickens, which, as most of them are older than those first killed, will doubtless equal them in weight, so as to allow an estimate of at least 300 lbs. of chickens. Now deduct the eggs used for hatching from the whole number, and there will remain seventeen hundred and thirty-two, and the following shows the value of eggs and chickens calculated at the lowest market rate.

300 lbs. chickens at 12½ cents	$37 50
1732 eggs, at 18 cents per doz	25 98
	$63,48.

being one year's increase from 15 hens!

Suppose I have fed to them during the year, 40 bushels of grain, at 80 cents the bushel, (which I am confident I have not done), there would still be a handsome remainder—proving to me that the rearing of chickens, if accompanied with ordinary care and judgment, will not fail to yield a profitable return.

I have never been troubled by fowls scaling my garden fence, and the few chickens that found their way between the pickets, were serviceable in destroying worms and insects.

As to choice of breeds, those of mine that most markedly showed the presence of Shanghai blood, were, when cooked, coarser in texture and less delicate in flavor; while the pullets of half Spanish blood invariably commenced laying at an earlier age than their Spanish sisters, and generally before they were five months old. Still, each distinct breed of fowls has its peculiar merits, and individual fancy alone will decide which is entitled to the preference. J. N. A.

Pembroke Green, Bridgeport, Conn., Feb. 1858.

Poultry—In-and-in-Breeding—Guinea Hens.

In the last volume of the *Agriculturist*, page 248, we gave our opinion of Guinea Hens and Peacocks, which was not very strongly in favor of these "ugly, vain, vicious, pugnacious, noisy, rude, cowardly, birds," which we still keep, however, for the "variety which they give to the poultry yard, and the luxurious plumage which decorates them." A correspondent of an English journal, The Field and Country Gentleman's Newspaper, comes to their rescue in an article that we copy more especially for the sensible suggestions he gives on the subject of breeding, which are applicable to all kinds of poultry, as well as other animals. The writer says:

How rarely do we see any encouragement given to Guinea fowls at our poultry shows. The reason I am at a loss to determine, as they are a really useful sort of poultry, and number several varieties. If not bred too closely, the chicks are as hardy as most fowls; they are very abundant layers, and their eggs and flesh are much esteemed; they cost very little to keep, at least in the country, where they do good service by devouring an immense amount of insects, which would destroy far more produce than they themselves possibly could. I do not consider them adapted to confined poultry yards; but I think no one who has convenience for them in the country should be without them. I am aware that they are usually thought too delicate to rear, and such is certainly too often the case; nor can it be wondered at, if we consider how they are propagated. For instance, a person procures a setting of eggs, and hatches them under a common hen; a brother and sister are reserved for stock; these breed; an accident happens to one parent, and the other breeds again the next season with its own offspring. A neighbor obtains a setting of eggs from these, and the produce goes through a similar course of in-and-in-breeding; and then the birds are at last discarded as so very delicate! The wonder, however, is, that any are left at all to breed from. My plan, when I commenced, was to procure a cock and hen from widely different parts so as to avoid any relationship. From these I bred, saving four pullets, and again purchased two of the finest cocks I could procure from a different place. For the years I had that stock the chickens were much hardier than the common fowls. I pursued the same practice with turkeys, and exceeded far beyond my expectations; this plan of breeding I have adopted with all kinds of poultry, and I can confidently recommend it to others.

The common color of Guinea fowls is a dark grey, the feathers having small round white spots on them. The varieties are pure white and ash-colored, that is to say, a pale, soft bluish grey, the feathers marked with white spots. Black are also to be obtained, but are not very common; those having a deep black ground and clear white spots are the most difficult to obtain, and I think by far the handsomest.

The Crested Guinea fowl is, I believe, a different species. It is rather smaller, of a grey plumage, the white spots not quite so distinct, the pinion feathers being reddish brown; and, in place of the horny casque, it has a plume of feathers on the head.

A smooth sea never made a skillful mariner. Neither do uninterrupted prosperity and success qualify man for usefulness or happiness. The *storms* of adversity, like the storms of the ocean, rouse the faculties and excite the invention, prudence, skill, and fortitude of the voyager.

Tim Bunker on Losing the Premium at the Fair.

(Wherein Esquire B. gives some broad hints about the way premiums are not unfrequently awarded.)

MR. EDITOR:

I told you in my last about raising a carrot crop with a new kind of manure. I did not tell you how I lost the premium on the same crop. It is an old saying, that "merit wins," but I think that must have been said in times when men were less tricky than they are now. I had always thought, that the only thing necessary to get a premium, was to raise the best crop; but I discovered at our last fair, that there was a mighty difference between raising a premium crop, and getting the premium for it.

You see, our County Fair was held at Hookertown, and the competition in the root crop was pretty sharp. The people of that town were up in force, and I guess, if there was one load of vegetables, there was twenty, heaped up with big cabbage heads and squashes, long turnips and beets, parsneps and carrots. The Rev. Mr. Slocum was up, and both his deacons, Fessenden and Foster, and Esquire Jenkins; and all brought along lots of garden produce. Smithville was well represented by the Lawsons, the Tabers, and the Wilcoxes.

Now, you see, it so happened that Tom Wilcox kept a livery stable, and had a mare that he thought might take a premium. He fed her high for a month beforehand, and got her into first-rate condition, and brought her on to the ground, without saying a word to the committee, or any body else, that she had the heaves. My neighbor, Jake Frink, was chairman of the Judges on roadsters, and must have known all about Wilcox's mare, as he sold her to him three years ago, and she was unsound then, and only brought seventy dollars.

But Jake had an ax to grind, and was mighty anxious to get a premium on carrots, so as to take wind out of my sails. So he managed to get Tom Wilcox put down among the judges on vegetables. Jake thought the thing might be managed, and, sure enough, he did manage it considerable slick. As soon as the judges came on to the ground, Jake—accidentally, of course—met Tom, and says he:

"Mr. Wilcox, you are not a going to enter that old mare, are you; you know unsound horses are not allowed to compete."

"Dew tell, Mr. Frink, you don't say so. But look here, Jake, she is as fat as a porpus, and I have fed her on green stuffs so much, that she hasn't coughed for a week. Nobody 'll know anything about it, if you do not tell 'em of it. Ha'n't you got anything you want a premium on? 'One good turn deserves another.' I'm on the committee for garden sass, you know."

Upon this, you see, Mr. Frink took Tom around among the roots, and I had the curiosity to keep within hearing distance.

"Good carrots," said Tom, "but you see, yourself, they a'n't so long or smooth as old Bunker's."

"I'll tell you what," said Jake, "I'll double my bill, to make more of a show, and you can give the premium on that."

I did not hear any more; but I saw Jake's hired man unloading a cart about an hour after; and, I guess, if Jake's sample of carrots had a half bushel in it, as the rules required, it had six.

Some of the people opened their eyes, when it was read off at the close of the fair:

First Premium on Roadsters, Thomas Wilcox, of Smithville.....$5 00
First Premium on Carrots, Jacob Frink, of Hookertown.....$2 00

But you see, my eyes had been opened before. The only shadow of a claim these men had for a premium, was, that the one had the fattest horse, and the other had the biggest heap of carrots.

At the last meeting of our Farmers' Club, we had up the subject of root crops for discussion. Of course, each man gave his experience, and, among others, Jake Frink gave the details of his mode of raising carrots, for which he took a premium last Fall.

When it came my turn to speak, I took occasion to congratulate my neighbor on his success, but was sorry that he had omitted to give one very essential item in his treatment of the crop, viz., a large application of *horse manure*.

Mr. Frink looked very red in the face, and pretty soon had occasion to go out and take the air. Whether he is troubled with apoplexy, I could not say.

Now, Mr. Editor, I think it is high time, that this business of giving premiums at the fairs, had an overhauling. If we can't have premiums awarded according to the merits of the case, one very important end of the fairs is defeated. People will very soon lose their confidence in them, and will not bring out their products for exhibition. I hope, you, editors, who know how to write, will stir up your readers on this subject.

Yours, to command,

TIMOTHY BUNKER, ESQ.

Hookertown, Jan. 16, 1858.

Three Kinds of Farmers.—Our Neighbors, Jones, Smith and Johnson.

Within the range of our daily vision, are two farmers who represent two distinct classes of agriculturists. Farmer Jones' aim and end in all his operations is to secure present profit, regardless of the future. His house needs repairing and painting, not only for its appearance sake, but also for its *preservation;* but as that would take something at once out of his pocket and yield no immediate return, he concludes to let it go, for this year, at least. So with his barns and other outbuildings. He constructs them out of the cheapest materials and in a hasty manner, satisfied if they answer for the present, to let the future take care of itself. Hence we see his foundations giving way after the first year's frost, and his buildings leaning at all angles; the doors, hung by leathern or old rusty iron hinges, breaking down; the siding, imperfectly nailed on, blowing off; and the floors made of thin and poor lumber, breaking through. His fences are in the same predicament. Wanted only to answer for present use, they are patched up out of old and rotten lumber, and are constantly breaking down and exposing his crops to the incursions of hungry cattle. His mode of tillage proceeds on the same principle. Draining, manuring, sub-soiling,—he has little faith in them, certainly no further than he thinks they will bear on the present year's crops. *Skinning*, is his style of farming: this requires no outlay for an uncertain future: all that he gets out of the land is so much clear gain. And he carries out this principle in his general style of life. His education suffices for the wants of to-day; so he will not take the trouble to inform himself against the demands of the future. Hence, books and papers containing solid and useful instruction are banished from his table to make room for those affording entertainment only. He manages to get along with his present character as a man and citizen; so he don't care to build up a reputation for integrity, generosity, intelligence and virtue. Alas, too, perhaps he cares only for the trifles of the present life, regardless of the grander scenes of eternity!

Over the hill yonder, lives farmer Smith, an intirely different sort of man. Can it be that he and Jones both descended from Adam? His eyes have a good deal of the telescope in them, being very much given to look into the distant future. He thinks, plans, dreams and talks of time to come. He is *going to be* a grand farmer, one of these days. When he gets his plans all matured, and when he gets them all, or half of them executed, won't people open their eyes and say he's a long-headed man, that farmer Smith, a man of bottom, a genuine "brick!" Won't they!

To his very bones, he believes in draining, and that thorough draining. To prove it, he has been at work for two years past, on a range of sand hills, cutting trenches down their sides four feet deep, and laying them with pipe carted a long distance at great expense. To be sure, he has never caught his drains delivering much water yet, but they are sure to do so by and by; the principle of draining is a good one, and is certain to show grand results at a future day. Subsoiling is another article in his creed. And he is proving his faith in it by subsoil-plowing a twenty acre lot of meadow-land which has a surface soil of virgin mould some two or three feet deep, resting on a porous substratum of gravelly loam. His neighbors look over the fence and shake their heads, and tell him they think he had better use first the rich soil on the surface, before going down after that near the center of the earth; or if he is trying to loosen up the subsoil so that his crops can send down their roots deeper, he needn't trouble himself to do that, for his clover and other crops already strike their roots lower than the point of his deepest plow. But he looks wise, and lets them talk on: he thinks they who plow shallow, are shallow men; they have no thought for the future; they have not read of the grand results of subsoiling. One of these days, perhaps, they or their children will see something.

Need we tell anything more about farmer Jones? How he builds stone fences six feet broad at the base, so as to have them durable; how he is now laying wide and deep the foundations of an immense barn, which it took him five years to plan; and how these and his other schemes for the future are on so grand and costly a scale that they exhaust his present means of living comfortably, and keep him continually in debt? He is a large hearted man, and has large ideas, but he rides his hobby to death.

As we have observed the ways of these two men, Jones and Smith, we have often thought, what a grand thing it would be, if the two could be "mixed together," and so form a new product, such as we found in a third neighbor, Mr. Johnson! Mr. J. does not manage his farm for present profit only, but so as to secure immediate returns, and yet provide for the future. He constructs his buildings in a sufficiently durable manner, and then keeps them in repair. He drains and subsoils only where such operations are needed, and will pay at once and in all time to come. He does not crop a piece of land without restoring the fertility taken from it. He manages his grain and grass fields, his orchards and his garden so as to reap present benefit and still greater returns in future. And while Mr. Smith and Mr. Jones left alone will come to poverty, the two combined in Mr. Johnson would prosper, first and last.

SUNDAY.—One of the most beautiful expressions of Longfellow is this: "Sunday is the golden clasp that binds together the volume of the week.

Bakers, generally speaking, are a set of *loafers*, often *knead*-y, and not always well *bred*

BANANA TREE—(Musa *Cavendishii.*)

An accurate representation of a Tree now growing in an American Green-House.

We present to the readers of the *Agriculturist* an accurate engraving of a Banana Tree, the first we have seen actually fruited in this country—and we have heard of but one other. The one here shown stands in the Green-House of Messrs. Parsons & Co., of Flushing. The hight of the main stem to the base of the leaves is 4 feet; the diameter of the stalk is 7 inches; length of the largest leaves, 4½ feet. The general color of the stalk is light purple—that of the leaves, dark green.

The manner of the growth of the fruit is peculiar and interesting. Most persons have seen bananas as they come to this country for sale. The clusters are sometimes very large—often three or more feet in length, and as heavy as a man can conveniently carry. A bunch has been grown in France, upon the variety *Musa Cavendishii*, which would not go into a flour-barrel.

Each plant bears but one bunch of fruit. From the base of the leaf stalks, or head of the main stem, at *a*, a single purple flower bud starts up, and throws off from its surface successive circles of bracts or floral leaves, (*b*). Under each of these leaves appears a circle of small flowers, which develop into fruit. The main bud pushes out farther, throwing off, from time to time, new leaves and new circles of fruit. The increasing weight bends the fruit stem over in a curve. In thrifty growing plants of this variety, the cluster of fruit is extended nearly, or quite to the ground.

GENERAL NOTES ON BANANAS.

The bananas or plantains are natives of the East and West Indies, Cape of Good Hope, and other tropical regions, where they are very valuable, both for the abundance of nutritive and delicious food afforded by their fruit, and for the many domestic purposes to which the gigantic leaves of some species are applied. The leaves are used for thatching the roofs of Indian cottages, and as material for basket-making; and one species "*Musa textiles*," yields an excellent flax, from which some of the finest muslins of India are prepared.

The tall stems of the bananas are formed of the united petioles, or stems of the leaves, and are remarkable for the great quantity of spiral vessels they contain. The banana is propagated by removing and transplanting the suckers which are constantly springing up from the roots of old plants

In their native locations they are very productive—yielding enormously in favorable situations. A patch of thirty to forty plants has been known to produce as much as four thousand pounds of nutritive substance in a year. The fruit arrives at maturity in about nine months from the appearance of the bud or sucker above the surface of the ground; and as these buds are produced rapidly at the base of the old stem, or stool, a succession of fruit-bearing plants is kept up throughout the season. They do not, however, so readily produce fruit under artificial cultivation. With a green-house temperature, it requires about three years from the bud, but in stove or hot-house heat, they will fruit in about eighteen months in our climate. They grow and fruit best in a strong loam, enriched with very rotten manure and vegetable matter.

Most of the fruit-bearing species require a large space, as they grow to the hight of fourteen to eighteen feet, which renders their cultivation impracticable in ordinary-sized green or hot-houses. Happily, the species represented by our engraving, *Musa Cavendishii*, obviates this difficulty. Being very dwarf in habit, it rarely, with the best cultivation, attains the hight of six feet. This is also one of the most productive species known. It is a native of the East Indies, and this, with "*Musa dacca*," also from India, and very dwarf, are the two best species for cultivation for the fruit in our climate.

The fruit from the West India Islands which is imported in such quantities into our markets, is produced by "*Musa sapientum*" and "*Musa paradasiaca.*" These can only be cultivated with success in very lofty houses, and they require also to be planted in a border or pit.

There are several species which produce very splendid bloom, among the most showy of which is the old "*Musa Coccinea*," with bright crimson and scarlet flowers; these are all very dwarf, not growing more than two or three feet high, and their fruit is worthless.

Current Notes from American Green and Hot Houses.

NEW GREEN HOUSE PLANTS.

INDIGOFERA *decora.*

A dwarf Green-House shrub, of great beauty, recently introduced from China. It resembles very much the "*Indigofera tinctoria*" which is the Indigo of commerce, but does not grow quite so large. The flowers are large, pea shaped, produced in large spikes, on the young shoots, and are of a delicate peach color. The leaves are large, pinnate, and glossy. It is a deciduous plant, has large tuberous roots, and will probably be hardy south of Washington. It requires a light and sandy soil to bloom well. It is a suitable plant for a small vase.

VIBURNUM *suspensum*

This is a new species of the "*Laurustinus*," a native of northern Asia. It is a medium sized shrub, with large glossy foliage, erect habit of growth, and flowers of a light rosy pink color. It produces flowers in midwinter, and though not very brilliant, they are in such profusion as to make it a most desirable plant and well worthy of cultivation in the Green-House. For the South, it will be a very valuable acquisition, being evergreen, and better adapted to endure the extreme heat and dryness of the climate than the common Laurustinus. It is a thrifty grower under pot culture, and should be planted in a rather strong loam.

VIBURNUM *japonicum.*

Another new species of the *Laurustinus* family. Leaves bright, glossy, very thick and fleshy, and

obovate in form. Flowers white, and fragrant, produced on the ends of the shoots in large panicles. This is a fine evergreen shrub—rather more difficult of culture than the "*suspensum*," but more showy. It is still rare, being of slow growth, and rather difficult to propagate, since, from the fleshy character of the wood, it is exceedingly liable to rot in the cutting. A compost of sandy loam with one-fourth well decomposed leaf mold, and free drainage, will secure a vigorous growth.

ACACIA *Drummondii*.

This is a new Australian species, very distinct, and decidedly the best in cultivation for a small green-house, as it is of very moderate growth, requiring years to make a plant five feet in hight. The foliage differs very much from any known species. They are compound, leaflets very large and broad, with very short footstalks, and thickly set upon the branches. The flowers are produced from the axils of the leaves, in spikes of from two to four inches in length, of a bright yellow color. It grows well in a light, rich, sandy loam, but will not bear overpotting, as it does not grow with the vigor of most Acacia's. It requires very little pot room, produces flowers while very small, either when raised from seed, or from cuttings.

ACACIA *grandis*.

This is a species very much admired for its graceful habit, and beautiful lively green foliage. It belongs to the "*pulchella*" section of the genus, but is more robust in growth, and is not so liable to become sickly as most others. The flowers are produced in the greatest profusion, in little round balls of the color of gamboge. This is one of the best species for training as standards, either to form a compact head or with pendant branches. The natural growth of the plant being so uniform, little skill or labor is required in training to any shape.

ACACIA *accutissima*.

Another quite new species, of dwarf bushy habit and very peculiar appearance, the leaves and wood being precisely of one color—a dark French green. The leaves are aphyllous, very spiry, and sword shaped. The flowers are produced in little balls which do not project beyond the points of the leaves. They are of a greenish yellow color, and contrast beautifully with the deep rich green of the wood and foliage. Its growth is very dense, and it is a species well adapted to a small green-house.

NEW HOT HOUSE OR STOVE PLANTS.

EUPHORBIA *puniceus*.

This fine stove plant is of recent introduction into this country. There are several other showy species which are common in our Green-Houses, but all are inferior to this in beauty, when well grown. It has a very erect habit, and to form a neat bushy plant, the ends of the young shoots should be pinched off several times through the season, while the plant is young. After it has attained age, its growth is less vigorous, and it will not make shoots more than four or five inches in length in a season. These shoots are terminated by a head of flowers which are surrounded by large bracts or floral leaves, of a deep brilliant crimson color, that retain their beauty for a great length of time. The foliage is light green and of a bright silky appearance. It is a very beautiful but rather tender plant, requiring careful treatment and a high temperature to grow it well. This plant belongs to, and is the type of an extensive *natural order*, abounding in the dry regions of Africa, where they assume the form and appearance of the *Cactus*, and are leafless. Some of them are deadly poisons, others furnish powerful medicines. In other parts of the Tropics, the "*Mandioc*" plant or "*Jatropha manihot*," furnishes the delicious article of food "Tapioca" which is obtained from the large tuberous roots.

GREVILLEA—TILLERMANII.

We have succeeded in getting a very fair sketch and engraving of a specimen of this plant, which was described in the February *Agriculturist*, page 54. It is impossible to fully represent the delicate foliage, and nothing short of a finely tinted colored picture could give a perfect conception of the beauty of its large clusters of bright red flowers. The plant from which our sketch is taken, is nearly three feet in hight, with the branches spreading over a space about four feet in diameter.

BILBERGIA *acaulis zebrina*.

A very fine little plant, with beautiful variegated leaves, and pure white spikes of flowers. It belongs to the "Pine apple," family—or "*Bromeliacæ*." It is from South America, where it grows upon the branches of trees in the dense forests. It requires to be grown in the shade, in order to preserve the delicate and rich marking of the foliage. It may be grown on a block of wood or in a pot as desired. The compost should be of light porous materials, such as coarse peat and moss mixed with broken potsherds. It delights in a high temperature and rather humid atmosphere.

IXORA *Javanica* (Low's,).

The Ixoras are among the neatest and most beautiful plants that are grown in the Hot-House. There are now a dozen or more species in cultivation which are exceedingly showy and fragrant. With few exceptions, they are low growing shrubs, natives of India and the Islands of the Indian Ocean. They bloom very freely during the early Spring and Summer, bearing large heads of flowers, some pure white, others crimson, with all the intermediate shades. The *Ixora Javanica*, of which there are two varieties, has been recently introduced. It has a rather slender growth; foliage pale green, with orange and light crimson flowers. The other variety called "*Rollinson's variety*" is of a higher color both in flower and leaf. The habits of the plant in other points is the same as Low's variety. These two varieties bloom more freely and for a greater length of time than any of the others. A light, rich soil, and a high temperature are required to grow them successfully. The natural order to which this plant belongs "*Cinchonacæ*" is interesting. It is not only one of the largest known, but also contains a number of important species, much employed for the use of man. To this order belongs the Coffee tree, "*Coffea Arabica*," and many are among the most valuable remedial agents, acting as tonics, emetics or purgatives. An eatable fruit is furnished by a few species. The "*Genipap*," a South American fruit, as large as an orange, of a whitish green color, but containing a dark purple juice with an agreeable vinous taste, is produced by "*Genipa Americana*."

Setting Out Trees, instead of Attending Lawsuits, Auctions, &c.

RAINY DAY RAMBLES.—NO. VI.

To the Editor of the American Agriculturist:

My rainy day rambles have not been "suspended," like most commercial affairs of late, though I have "failed" to communicate them. During my last rainy day neighborly visit, I overheard a little chat which suggested a thought or two that may not be uninteresting, and I give you the substance if not the exact words.

"Well neighbor, I must say you have many beautiful trees around your house. A few years

ago there was not a tree here; somehow you have had good *luck*, or the soil suits them. I love to see trees growing as well as anybody, but I can't find time to set them."

"Aye 'squire, I have heard this many times before. As to soil, many of my friends expressed wonder that I should plant trees where the ground was so unsuitable, and as to not having time, I have never seen the farmer, unless he had a double business pursuit, who had not had time to plant shade and fruit trees. You have had abundant time, and I will prove it. One day last Spring, when the frost was out of the ground, but too wet to plow, I took my man and team and went into the woods and dug up over twenty ash and elm trees. After dinner we dug the holes and set them out by the road. Next day we put posts around them and secured them against the winds and cattle. Now, on that day you went to a trial at the Court-House ten miles off, in which you had no personal interest, and the next day you went to the village and was so busy telling about the trial to other loungers at the stores and tavern, who have never found time to set out a tree, that the whole day was consumed. Last Fall, I went to the nursery and purchased a quantity of fruit trees, and set them out in the orchard; but it was by staying at home, and not going to the political meetings, auctions, &c., as you did, and by so doing I was ahead of you in my work when Winter came."

"Neighbor, you hit pretty hard to be sure, but somehow, I don't know what kind of trees live best."

"Nothing easier. Dig up and transplant any kind of trees carefully, and they will live; but do not choose too large ones; you will seldom find a forest tree more than two inches in diameter to succeed as well as a size smaller. And there are but few places in the United States where access cannot be had to good nurseries from which you can make your selection."

"Yes, but neighbor, they are too costly for me; the rich can only purchase enough to fill their yards, and line their roads."

"Very well, this Spring instead of walking down to the village to spend the time, or attending every auction you hear of, unless you intend to purchase before you go, take your men into your woods, and commence operations. Where you cut off timber five years ago I recently noticed a beautiful lot of sugar maples, and in another part some black-walnuts, beech, and bass-wood trees. I noticed near your swamp, white-woods, and sweet-gum. Try them too, they are beautiful trees, and succeed well if of the right size. I have no belief in this want of time to set out trees. Plant one a year, if nothing more, for shade around your house, and in twenty years you may have a respectable shade. If you love your wife, squire, as you ought to, if you love your children, if you respect the opinion of your friends, or regard the beauty of country life, ornament your grounds with a suitable number of shade trees. And while you are about it, just set a few rose bushes around your house, say altheas, or any other pretty flowering shrub, and I know Julia will thank you for it, and your daughters will esteem you the more. Try it."

The 'squire acquiesced in the suggestion of his neighbor, and I trust he will act upon them. S.

North Hempstead, Feb., 10th., 1858.

An Irishman, in great fright and, haste, rushed into Abernethy's office and exclaimed: "Be Dad, the boy Tim has swallowed a rat!" "Then, be dad," said the doctor, "tell the boy Tim to swallow a cat!"

Cultivation of Cranberries.

The *cultivation* of cranberries has been confined, almost exclusively, to New England, and chiefly to Massachusetts, though they have grown well, to some extent, in several other States. Many have supposed that this fruit could be raised successfully only on the salt marshes of the seaboard, or, at least, on low, boggy land, subject to frequent inundations. We are glad to see an interest springing up in the cultivation of this delicious fruit outside of New England, and are pleased with the evidence that it can be raised in any part of the country, and on upland as well as in low marshes.

One species, the small, European, abounds, not only in northern Europe, but also on this continent, in Nova Scotia, New Brunswick, and along the St. John's river. Another, the common American, is found in all our higher northern latitudes, and from thence to North Carolina, on the south, and to Minnesota, on the west. Each of these species may be subdivided into several varieties, such as the oval, flat, globular, &c., The "bell variety," we believe, is the most popular sort for cultivation in New England. As the farmers of the middle States are beginning to turn their attention to the culture of this fruit, we offer a few hints on the subject. (An excellent article from the pen of Mr. Bagley, appeared in our last volume, page 9.)

Let it be premised that, though the cranberry can be grown successfully on upland, it is yet questionable whether it will pay as well as corn or grass. The native habitation of this plant is in low marshy land, unfit for raising any other crop, and it is such soils, chiefly, that we advise our readers to use for this purpose. But of this, more hereafter.

The native species has a stem two to four or five feet long, sometimes, indeed, stretching out a dozen or more feet, in favorable localities. The leaves are oblong, and the flowers quite showy. The berries hang from the end of the young branches on reddish stalks, so bent at the extremity as to resemble a crane's head, neck and bill, from which appearance it derived its name—*crane's-berry*. In their growing state, the berries have a dull green color, and are comparatively tasteless; when ripe, they assume a rich scarlet, or carmine hue, and contain a rich acid, very agreeable to the palate.

As it has been already said, its favorite home is in wet, boggy land; yet it is sometimes found in hilly regions. Plainly, it is not fastidious about the place of its abode. It will grow on low land, inundated by the tide; on coarse, clean sand; on peaty soils; on dry gravelly upland; and in any rich garden mould—though it thrives best, and bears most abundantly on lands just suited to its wants.

It is propagated in three ways, viz., by seed, by cuttings, and by transplanted roots. The first is a slow method, requiring the loss of two years, but answers well where time is of little account. To prepare the seed—mash the berry, wash away the pulp, mix with sand to facilitate sowing; then scatter broadcast, and harrow in. To propagate by cuttings, a well-informed writer says: "Gather a large quantity of vines, and run them through a common hay-cutter, until they are reduced to the required length, an inch or two, when they may be sown broadcast and harrowed in. These slips, take root very soon, starting from the base of the leaves, and at the same time shooting up many rising branches." Others prefer sowing in drills, covering with care. In propagating by transplanting the roots, the ground needs hardly less preparation than for sowing. All bushes and foul weeds and grasses should be exterminated. After the ground is well cleaned, spread on the surface three or four inches of sand. Take up the plant with a sharp spade, and set them a foot apart in the rows, and the rows a foot and a-half or two feet apart. Some persons prefer setting them wider apart, and cultivating between them. If the hoe is allowed among them, it should be used with great care, as the roots of the young vines are easily loosened. Not a few maintain, that the best way is to take special pains at the outset, to rid the soil of all weeds and grasses; then to set the plants one foot apart, when they will soon spread over the ground, and keep the weeds in check. When the land lies so that it can be irrigated, it is considered advisable to do so several times a year, not only to furnish the plants moisture, but also to check their too early growth in Spring. An occasional flooding in April will retard the blossoms sufficiently to protect them from frosts.

The cultivation of cranberries on upland has its advocates. Many even insist that the fruit is larger and better than that grown on lowland. This mode of culture has, at least, these advantages: that the work of tillage is pleasanter and healthier, and that the plants suffer less from late frosts. When one has no low marshy land, we would advise him to devote a portion of his upland to this crop. No manure is needed in preparing the soil. All the application required is a dressing of swamp muck, and perhaps a mixture of sand, if the soil is not naturally light and porous. While the vines will grow tolerably well on land dry enough for corn and potatoes, they succeed better on that which has a light, sandy surface, with a moist substratum. A stiff, clay soil, which becomes dry in midsummer, is very objectionable.

Plants can be bought in any quantity, for about $5 a thousand; and they may be set out, either in the Fall or Spring. An excellent mode of planting is, after the ground has been prepared, to stretch a cord across the patch; draw drills or make holes with a hoe, a foot and a-half, or two feet apart, by the side of the cord, and then follow with the plants, setting them out with the hand, like strawberries, and covering the ground about each hill with a little sand. With a little care at first, in weeding, the vines will cover the ground in about two years. When well established, they often bear from 100 to 200 bushels per acre. A rake, made on purpose for gathering cranberries, can be found at nearly all agricultural stores. The berries are usually sold at from two to four dollars a bushel.

Among the drawbacks in the culture of this fruit may be mentioned, the injury from the growth of weeds among the plants, from late Spring frosts, and from the attacks of a worm resembling the common apple-worm. But with all these, it is worthy the attention of farmers, especially those who have low, boggy land, unfit for other purposes. The food is wholesome and palatable, and always commands a good sale in market, both for home consumption, and for exportation.

"All Flesh is Grass."—A Western editor, speaking of one of his brethren of the quill, noted for his fatness, remarked that if the Scripture proverb, that "All flesh is Grass," was true, then that man must be a load of hay.

"I suspect I am, from the way the asses are nibbling at me," replied the fat man.

"What did you give for that horse, neighbor?"

"My note."

"Well, that *was* cheap."

Downing's New Gooseberry—Not in Market.

Our notice of this variety, on page 23 (Jan.) has called forth a number of inquiries for it. We addressed a note to the originator, Chs. Downing, Newburgh, N. Y., to which he replies that "....The seedling gooseberry has not been propagated at all; all the cuttings have been given away to the many nurserymen and amateurs who have applied for them; so that in time, some will be for sale. I have no cuttings left, and do not intend to propagate it for sale.—It is an improvement on the Houghton's in size, and form of the bush (being more upright and stout;) in flower, about the same; color, greenish white."

Leaf and Blossom Buds.

To the Editor of the American Agriculturist:

I understand that all peach buds will not answer for working upon small trees, as some of them bring blossoms only. If such is the case please inform me, and give directions so that I will know which to cut. I also wish to know how and in what month to bud the peach. I intend planting an orchard in the Spring, and would like to see an article containing the desired information.

Tippecanoe Co., Ind. G. N. O'DELL.

REMARKS.

We introduce the accompanying cut to illustrate the different buds referred to by our correspondent. The side buds *b b*, known by their full round appearance contain the embryo blossoms, and should not be used in budding. The proper ones to select are the single, pointed, leaf or shoot buds, as seen in the upper end of the cut at *w*. Sometimes a leaf bud is formed by the side of or between two blossom buds, as seen near the bottom of the cut, *w* being the leaf, and *b b* the blossom or fruit buds. They should be discarded in working, as the vital fluid necessary to nourish the bloom, and sometimes form fruit even, would be diverted from its proper channel, and a weak growth would be the result.

More care is required in selecting peach buds than cherry, pear or other kinds of fruit. Buds are chosen in mid summer from the *present* season's growth, and excepting in the peach, we seldom find fruit buds on these shoots. July and August are the proper months to bud in. Full directions with illustrations were given in our last volume at page 161 (July), and other suggestions will be thrown out at the budding season of the present year.

Peach Borer Plastered Up.

We lately neard of a fruit-grower who, after cutting out a number of grubs from his peach trees, thought he would try the experiment of *walling in* a few. So he took some pure white clay, and plastered up the holes left by the gentlemen within. The clay soon became dry, the wound healed over, and, of course, the borers were smothered.

Taking a hint from this, we, last Summer, cut off the retreat of a borer in one of our young English elms. He had worked his way into the tree, an inch or more, and then ascended, pushing behind him, and out of the hole, the debris made by his incisors. With a sort of malicious delight, we cleared out the mouth of the hole with a knife, and then filled it up with a mixture of gum-shellac, made of about the consistency of thick cream. This dried very soon, and, of course, gave the borer an air-tight parlor, which was fatal to his health and his future explorations.

The Orchard—No. III.

APPLES—*Continued from page 50.*

For the first half-dozen years, plowing the whole ground will not be necessary. A few feet each side the tree, say twice the distance that the limbs spread from the trunk will be sufficient to mellow the earth for the young roots to penetrate and to let down the warmth, air, and rains, upon them. Beyond the spread of the roots the plowing may be deep, but where they have already run it should be shallow, as, otherwise, the roots will be cut and injured. We have seen fine young orchards almost ruined by *deep* plowing close to the trees. When the trees have grown to five or six inches in diameter grasses may be permitted occasionally to grow among them, particularly if pastured by small animals which will not injure the bark of the trees; the grass being closely cropped will admit the rains to penetrate the soil, which *crop* grasses will not so readily do. Hogs, thoroughly rung in the snout, are the best graziers in the orchard. They eat the windfalls, and of course destroy all the worms in the fruit, and so far, prevent the further propagation of such insects. Sheep may be allowed, but if the grass be cropped too close, they may gnaw the bark of the trees, which should be carefully looked after. Cattle and horses are too large to range in the orchard, as they browse the limbs, tear off the fruit, and bark the trees by their horns, or teeth. A rampant young bull of our own once bounded through our orchard bars within sight, and before we could reach him, he had attacked the body of a fine tree, four or five inches in diameter, with his horns, and being in the Summer, when the bark was "in the peel," he destroyed it in less than a minute's time.

Thus it will be seen that a positive, and for a term of years, a dead investment of capital, according to the extent of the orchard, must be made before any compensating returns can be expected from it. Yet, when those returns commence, they rapidly increase to cent per cent, and that almost in perpetuity during the better part of a century; and although the actual returns of the orchard have been greatly exaggerated, still, in the absence of extraordinary casualties, and under favorable circumstances, no agricultural investment can be more profitable or certain, when within the control and supervision of an intelligent proprietor.

LOCALITY OF THE ORCHARD.

Where *good* varieties of apples will not net the grower twenty-five cents a bushel at his farm, an investment in a large orchard may well be questioned. And when the soil and position are not natural to the growth and annual bearing of the trees the orchard is not to be recommended. Situations liable to late Spring frosts are to be avoided. We repeat even what we have already said, that warm, free soils, with natural protection, by way of hills or woods, from high sweeping winds, are, if possible, to be preferred. Sweet, friable soils, natural to white clover, even if stony on their surface, are excellent; but where the water stands long after rain or snow, or in places naturally springy, the soil is cold, and adverse to the growth of fruit trees. Dry and warm strong clay loams are good for many varieties of apples. Some soils not naturally warm and dry, may be made suitable by under draining; but as the orchard usually occupies only a small portion of the farm, lands *naturally* fitted, are the best for the purpose. As the choicest fruits for marketing and long keeping, are those which are *handpicked*, they should not be subjected to trundling over rough, jolting roads, in transportation. We have known the products of large orchards ruined by wagoning a dozen miles over bad roads. Therefore, proximity to a railway, canal, river, or other water communication, is a very desirable requirement in locating an orchard.

PROFITS OF ORCHARDING.

We have been often amused in looking over the Reports of Fruit Conventions, and some enthusiastic writers in our periodicals, at the absurd statements they make of the profits of fruit-growing, drawn from the example of a single tree, or a half dozen trees, in a fortunate locality, and a successful season. Such statements may all be true, as a chance or extraordinary crop; but he who takes such samples for a rule will be sorely disappointed. The orchard has to encounter predatory enemies of more formidable description than any crop-bearing material on the farm. These enemies extend, not only through the long catalogue of the insect tribes, but they embrace numerous birds and beasts. From the mouse and the mole, up to the rabbit, they are subject to occasional depredations, to say nothing of the sometimes inevitable damages by the larger farm stock, and the violations of lawless men. Adverse seasons, and the elements, may affect them ruinously, and against all, or some of them, it is, at times, scarcely within the vigilance or ingenuity of man to guard. Then most kinds of apples give but a *full* crop once in two years. Some varieties are so well balanced in their bearing, that they give a moderate crop annually; but they are the exceptions, not the rule. True, an orchard may be so constituted, that it will give a fair crop every year, but not from the same trees. Trees of the same variety, in the same year, will not bear equally alike; they may alternate each with the other. Late Spring frosts may cut off the crop of some, while it may be spared in others, and thus accident will change their years of bearing. In looking over the proceedings of our pomological conventions, it must be borne in mind that they are composed principally of nurserymen who raise trees to sell; and although we regard them as a useful, intelligent, and upright class of men—as much so as those of any other profession—we must bear in mind, that they are there in the promotion of their own interests, as well as that of the public, and their statements of individual things are to be taken with some allowance, when applied at large.

To conclude: The following items may be adopted at the outset, by all who are about to enter on the plantation of orchards.

1st. A dedication of the land appropriated to that purpose, and *to nothing else*, so far as *profitable* crops are concerned.

2d. An annual outlay of labor and manure, without much return, as the case may be, in the cultivation and growth of the trees, until they arrive at a bearing condition.

3d. An investment of the necessary capital to get the trees, the preparation of the ground, and planting them; from all of which no return of

consequence can be expected for the first six or eight years.

4th A thorough study and knowledge of the whole subject of selecting and preparing the land, the kinds of apple to cultivate, training, pruning, protection—in short, acquiring the trade of fruit-growing, in its most intelligent and comprehensive manner. These may all be got from the books—every author of which should be consulted; and whose works, altogether, need not cost over ten or fifteen dollars in the aggregate—and with all this knowledge reduced to practice.

5th. A persistent watchful care and vigilance, in all that pertains to the orchard afterwards.

We have not taken apple-raising for cider and vinegar purposes into the account. That they may be raised for these purposes alone, in some localities, is probable; but windfalls, and enough fruit not fit for marketing, will usually be found in every considerable orchard for such uses, or to an extent sufficient to supply the demand that may be required for them.

For the American Agriculturist.

Suggestions on Pruning.—No. II.

BY A. O. MOORE, NEW-YORK.

[*Continued from page* 25.]

Being convinced that no set of rules or recipes can be given for the pruning of fruit trees, which will enable a person unacquainted with the principles of vegetable growth to become a successful *practitioner*, I will first give a few general facts and illustrations of these principles.

A tree is not simply an individual organism or *unit*, like a man or a horse. It is a "*Mutual benefit Society*," composed of a number of individuals, amounting sometimes to many millions, each one being capable, under favorable circumstances, of maintaining its own existence, not only when in connection with, but when separated from the community in which it was produced; or it may easily be transferred to another society, and will there grow and reproduce its kind with undiminished vigor.

These individuals in whom alone resides the vitality or growing power of the tree, are the *buds*.

Fig. 1.

Fig. 1, presents a familiar object, a twig with buds upon it. The stem and branches of a tree are merely the mass of rootlets or descending fibers from the buds, extending to the reservoir of food, the soil. The newly developed buds form their fibers on the outside of those previously formed, causing the annual increase in the diameter of the stem. The old fibers gradually cease to perform any part in the economy of the tree, and becoming heart wood, are *dead*, though preserved from decay

Fig. 2. Represents a section of a twig with buds. *a*, *a*, are buds cut so as to exhibit the layers of young leaves. *b*, *b*, the pith which contains a store of nourishment for the young buds. *d*, *d*, are the vital or growing points of the buds, corresponding with the germ of a seed. *c*, *c*, *c*, are the layers of fibers or roots of the buds which descend through the branches and stem to the soil. By a process precisely analagous to the germination of a seed, each bud, in its growth, sends downward, under the bark, its rootlets, while it pushes upward its stem and leaves, bearing a new series of buds.

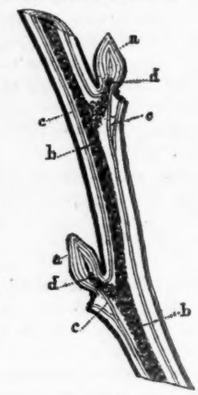


Fig. 2.

The striking similarity in the growth of a seed and a bud may be seen is *figs.* 3 and 4.

Fig. 3.

Fig. 4.

Fig. 3 is an Acorn sprouted. Having burst the shell it is sending upwards the stem *a*, and downwards its root *b*.

Fig. 4 is a leaf bud of the Hickory, in the act of breaking from the sheath. The Acorn has burst to allow the escape of the downward growing root and the upward growing stem; while the Hickory bud is pushing out of its sheath which has protected it during the Winter. The roots of the latter are of course hidden within the stem. I have selected the seed and buds of forest trees for examples, because the process is more easily seen, but the same principles govern the growth of all trees.

Leaves are the nurses of young buds. In fruit trees every bud has a leaf charged with its especial care; and when so grand an event as the birth of a *blossom bud*, or as it may be called, a *prince*, destined to form a new dynasty, is about to occur, two or even six leaves are often deputed to the nourishment of one bud.

These buds, then, being independent individual existences, may be removed from the tree or parent community, without injury to those that remain.

In all healthy vigorous trees, especially when young, there is a greater number of buds produced in each year than can receive the highest development, or can find space for growth without mutual interference and injury. Nature thus provides against accident and injury, as well as for the sustenance of insects and animals which are fed by the foliage of trees. If, then, none of these buds are removed, some will be suppressed and smothered by more successful rivals, and others will mutually injure each other and produce a weak growth, while a few of the most favorably situated will have a monopoly of the wealth of the vegetable nation, and of the light and air of Heaven.

This points to the first object to be attained by pruning, viz.—to regulate the number and position of the buds upon a tree.

Our object in the cultivation of fruit trees, is the production of the greatest quantity and best quality of fruit. We care nothing for the tree itself or any other of its products. That course of treatment will be the best which throughout the life of the tree will produce the greatest aggregate of fruit, regard being had to the labor, manure, and space devoted to this purpose. If we produce a great growth of wood it should be only to afford space for fruit. If we find that the growth of wood interferes with the production of fruit, of course the former must be curtailed. It is well known that in all plants either an excessive or deficient growth of stem is unfavorable to the production of the seed, fruit or grain. The *second* object, then, to be attained by pruning is the proper equilibrium between the nutritive or wood producing tendency, and the generative or fruit producing power. Besides these objects I know of no others, except in cases of injury, disease or old age.

A tree to be perfectly educated should be properly pruned from the first year of its growth; no after care can atone for neglect at that time. If properly managed from the start, a larger tool than a pruning knife need never be used upon it—cases of injury, disease and old age, excepted.

I will endeavor in subsequent numbers of the *Agriculturist* to give what I consider to be the true theory and practice of pruning—first with the young tree, and then for old and neglected trees. I would here advise those who would cut away large branches of trees, or any over two inches in diameter to postpone the operation until the months of June and July. March is so frequently employed in this work, that a word of caution may be appropriate now.

Roses from Cuttings.

To the queries of A. Durkee, Windsor Co., Vt., we reply: Roses can be propagated by cuttings, but more successfully by layers when they branch sufficiently near the ground. To strike from cuttings, select wood of last year's growth, and plant in early Spring. The shoots should be prepared before the buds have swelled, cut into pieces eight to ten inches long, and planted in a moderately moist, loose soil. A slight hot-bed heat is best for starting them in. The bottom heat, the loose yellow soil, and especially the *glass covering* facilitates their rooting. When planted in the open ground, only a small proportion of them usually live, unless the ground be deeply trenched, and the plants screened from the hot sun, and frequently watered. But, with care, enough will generally live to supply the home demand.

Camellia—LOWII.

This is a new variety of this well known and popular flower. It was raised by Hugh Low &Co., of the Clapton nurseries, near London. There are now a very large number of varieties of the camellia in cultivation. Many of them, in form and richness of color, of both flower and foliage, approach very near to perfection, and seemingly leave nothing to be desired. Yet there are still points to be attained in some of the sections of the family which will be a decided improvement. Among the white flowered varieties we have nearly reached the climax as to *form*, and of rose colors which so much abound in the new hybrids, we have plenty that are all that could be asked.

But we have still no good crimson—that is a perfect well filled up flower. *Eximia* is good alone in color. *Matholtiana*, which is also new, is very little better in form, but is still a trifling

improvement. *Lowii*, here shown, is the greatest advance yet made in this direction. The anthers of the flower are perfect; the petals are broad, finely imbricated, and of good substance, but wanting in the center. It appears as if the whole energies of the plant had been expended upon the splendid outer rows of petals of the flower, and it had not strength to finish the work. The color also fades a little in the center upon full expansion. Still we can recommend this variety to all lovers of the camellia as the best crimson yet known. The habit of the plant is good; the foliage, very dark green, of great substance. It has a rather dwarf habit of growth, and flowers late in the season.

Plants that are Raised from Seed.

Among younger readers, and perhaps older ones who are new hands at cultivation, there seems to be incorrect notions in regard to propagating plants from seed. Thus, for example, we have frequent applications for *seeds* of Blackberries, Raspberries, Strawberries, Currants, Gooseberries, Grapes, Apples, Pears, Plums, Cherries, Quinces, &c., to say nothing of Rhubarb, and of Dahlias, Double Petunias, Camellias, Roses, Verbenas, Geraniums, Fuchsias, Chrysanthemums, and various other flowers, of which the true kinds are only propagated from cuttings, suckers, roots, buds, or grafts.

Now, though all the above named and others, *may* be grown from seed, and indeed are so grown, to produce *new* varieties, yet they all *sport*, that is, the seed from a single specimen of any variety of the above plants or trees, whether good or bad, is quite apt to produce half a dozen or more varieties, generally all different from the parent, and usually inferior to it.

Suppose a hundred seeds from the same apple tree, be planted and grown into a hundred trees; it is quite likely that the fruit on no one of the new trees will resemble that of the parent stock. One or more may *chance* to be superior. In this case, an improved variety is obtained which is afterwards propagated by grafting or budding. The other fruits, the berry plants, &c., which we have named, follow the same rule.

Persons often devote their whole lives to experiments upon seeds, in an effort to obtain a new valuable variety, and they often feel rewarded if only one in many thousands of experiments prove successful. We know a gentleman who has been planting strawberry seeds, for fifteen or twenty years, but while he has grown thousands of varieties only to throw them away, when the fruit is seen, he has not chanced to obtain more than one or two kinds which he deems sufficiently valuable to continue their propagation by runners or roots.

Try the Winter Cherry.

We were so highly pleased with this plant last year, that we are quite anxious to have it tried by our readers, and we have therefore saved and obtained from others near half a million of seeds, which we have put into small parcels of about 150 seeds each in order to have them go as far as possible. If one-fifth part of these grow they will furnish quite a supply of plants for the present year's use and especially for future seed.

The growth and habits of the plant is similar to that of the common tomato, and hence it has been called the "Strawberry tomato." The ripe seed balls make a most beautiful sauce and preserve, and a syrup so much like honey that our correspondent, N. Goodsell, recommended it as a substitute for honey. (See Vol. XVI, page 35). We for one feel quite obliged to Mr. G. for calling our attention to it, and such of our readers as are led to cultivate and use it successfully will doubtless feel obliged to him also.

The seeds may be sown in the open ground the latter part of April or early in May, in this latitude—earlier at the South—and afterwards thin or transplant to about 2½ or 3 feet apart. It may be well, in order to secure early fruit, to start a few in the house or in a hot-bed the same as cabbage or tomato plants, and put out at the proper season. We shall in due time refer to the use of the fruit. Our seed will be sent to all subscribers applying, until the supply runs short. Wm. B. Mendenhall, of Delaware Co., O., inquires concerning the "Hull Tomatoes." They are the same as the above described Winter Cherry (*Physalis viscosa*).

EUROPEAN VARIETY—*Physalis alkekengi.*

This is similar to the common American variety (*Physalis viscosa*), but differs from it in having a heavier and more upright stalk, with larger and more acid fruit. It requires a longer time to mature, and at the North, requires starting in the Green-House or hot-bed. South of say latitude 38° it will probably ripen if planted at first in the open ground. Where it will mature, it may be quite as valuable as the American variety. We have a few thousand seeds of our own growth, which we shall be happy to distribute in small parcels to subscribers, desiring to try it.

Abutilon—STRIATUM.

We present above an illustration engraved from a beautiful pencil sketch kindly contributed by Lucy A. Matson of Thetford, Vt., for which she will please accept our thanks. The *Abutilons* are among the most pleasing plants grown in the house or under glass protection. In this latitude they will thrive well in the open air until the appearance of frosty weather. They are especially adapted to parlor or house culture in pots, as they endure changes of temperature remarkably well, not being injured by any cold short of actual frost, and they are little affected by a hot, dry atmosphere, but seem rather to delight in it.

They are propagated by cuttings which strike readily, and will begin to bloom almost as soon as well rooted; and, what adds particularly to their attractiveness, they will continue in flower the entire year if kept warm. The habit of the plant is bushy, but may be shaped by pinching the ends of the leading shoots. In two or three years it may be grown to the hight of 10 or 12 feet if desired, or it may be kept down to a convenient size for a room or conservatory. If grown in pots the soil should be a strong unmanured loam, to save the necessity of frequent changing. They are now so common as to be readily obtained at most commercial Green-Houses at a small price, say 25 cents to $1 according to size, &c.

Varieties.—There are a dozen or more varieties of the *Abutilon*. The one shown in the engraving is the most common, but by no means the least beautiful. Its flowers are Orange, veined with crimson. There are some newer sorts having larger flowers, which are of different colors. The *Abutilon insigne* has flowers almost black. The *Abutilon alba* yields a pure white bloom. The *Abutilon venosa* has a larger flower than any other variety, but is coarse and straggling in habit. The two varieties now most esteemed are *Van Houtteii* and *Insigne*.

Hook was walking with a friend, when they came to a *toll-bridge*. Tho friend asked if Hook knew who built the bridge.

"No," replied Hook, "but if you go over you will be *tolled*."

To Raise Extra Early Potatoes.

Cover the bottom of several shallow boxes with six inches of equal parts stable manure and loam and put any early variety of potatoes over the surface two or three inches apart; then cover them with six inches of the compost. Nail slats or an open cover over the top, and bury in the side of a fermenting manure heap, the warmth of which will soon start the potatoes into growth. If the heat should be too great, remove a portion of the manure from the top, and admit air inside the box. When the weather will allow planting out, remove the boxes, which will contain a mass of roots and whitish colored stalks. Leave them in the open air for a few days to harden off, and having watered them copiously, take out the potatoes with as much earth as possible, undisturbed about the roots already formed, and transplant in rows. You will then have potatoes at least two or three weeks earlier than when planted at first in the open grounds. The middle or latter part of March will be a proper season for putting them in the compost heap, in this latitude.

Interesting Facts about the Winter Rest of Trees.

During the mild weather of December and January last, we heard the fear often expressed that the buds of fruit-trees would begin to start, and that they and other trees would be injured. Such fears will not bear the test of a little examination. All trees have a natural period of rest, and will not allow themselves to be awakened until they have enjoyed it. That period begins in Autumn, at the usual time of the fall of the leaf, and even before. It begins when the buds for next year's growth have become fully formed, at the axils of the leaves, and the new wood has well ripened. Growth then ceases, and the leaves begin to fall. The soft, hazy weather of Indian Summer may then intervene, yet it will not disturb the slumbering tree. A few plants, such as daisies, violets, Noisette and Bourbon roses, the natives of warmer climates may open their eyelids and smile for a few days, but trees will not be aroused. They will sleep through a fortnight of warm weather in early Winter, for that is their appointed and necessary period of repose. Their slumber is sound and heavy, like that of a weary man in the early hours of night.

Nurserymen have experimented with lilacs, spiræas and similar plants which are most easily excited; and they find that if taken up in the Fall and planted in a warm green-house, they will not start, for at least a month, although exposed constantly to light, heat and moisture. So with hot-house grapes; they refuse to push until they have had their needful rest of from two to four months. Heat of 60° will not start them during their natural time of rest; but after that period, 40° will develop their buds.

The oak and beech trees drop their leaves, in the Island of Madeira, even while the temperature is as high as that of our own Summer; and they take a nap of several months, undisturbed by the untimely heat around them. In that country, the beech casts its leaves in November, and buds out again in April, making a rest of about 150 days. The oak sleeps about 110 days; the buttonwood 90; the tulip-tree 150; the grape vine a little less. So that these trees, the natives of cold climates, drop their leaves nearly as early in warmer latitudes, and rest nearly as long, as in their native habitats. Were we to moralize here, we might say that when "Young America" travels in foreign parts, he might well learn a lesson from the trees, and maintain while abroad, the good habits learned at home. But we cite these facts rather to show that mild weather, at least in *early* Winter, can do little or no harm to vegetation.

The Atmosphere and the Farmer.

The chief business of the cultivator, of course, is with the soil beneath his feet; it is by draining, manuring, and plowing *that*, that he must expect to obtain prosperity. But is he not also dependant on the air above him? Indeed, a little reflection will show that no unimportant part of his farm lies in the atmosphere enveloping the soil in which he delves so industriously. He owns an invisible ocean—fifty miles deep above his head; yet not wholly invisible, either, for if he looks around and upward, he sees it tinged with a beautiful blue. He can feel it more plainly than he can see it, especially when its waves are put in motion in winds. Then, it fans his burning cheek, sways his luxuriant grain, and if lashed into fury, it uproots his trees, overturns houses, and spreads desolation far and wide.

The weight of this superincumbent ocean is fifteen pounds to every square inch, never more; and were not this pressure the same on all sides, upwards as well as downwards, it would oppress, if not crush every living creature. Men drink large draughts from this ocean continually. The farmer, and other out-door laborers, public speakers and singers imbibe it more largely than men of sedentary pursuits. A person of medium size and sound health, drinks eighteen times a minute, and in twenty-four hours consumes fifty-one hogsheads of air.

But, dropping all figure, the atmosphere as God has made it, is rightly compounded to promote the health of man, animals and plants. It is composed chiefly of two gases, oxygen one-fifth part, and nitrogen four-fifths, with a trace of carbonic acid. Oxygen, being the chief supporter of life, and the fraction of it in the air so small, it is exceedingly important to preserve it unvitiated. Any increase of carbonic acid in the air is injurious to the health of all animals. It is increased by respiration, by the decay of animal and vegetable matters, by stagnant water and by cumbustion. When pure air, and enough of it is inhaled, it purifies the blood and promotes the general health of the system: impure and insufficient air saps the very citadel of life. The air of damp cellars and of stagnant marshes is unwholesome; rooms lighted with gas, and heated by coal stoves with poor draft, are often filled with carbonic acid and other noxious gases. "A single gas-burner," says Coombe, consumes more oxygen, and produces more carbonic acid gas than six or eight candles." Close and over-heated rooms of all kinds are unhealthy; especially so, if they are occupied by a number of persons for any length of time. Foul and unventilated stables are injurious to the health of animals. If farmers as a class are more healthy and vigorous than other men, it is chiefly because, in addition to continued exercise, they live so much in the open air, and inhale the prime source of health at every breath.

But the atmosphere has much to do with the farmer's welfare in another respect. Plants breathe, as well as men, and their life and health depend on their breathing. Every leaf on the trees of our orchards, on the bushes and vines in our gardens, on the grains, grasses and vegetables in our fields, has a multitude of pores or mouths through which the plant breathes. Destroy or shut up those pores, or remove or seriously vitiate the air, and the plant dies. The air does a work also in the soil, preparing it to nourish the roots of every plant. Draining, sub-soiling, plowing and hoeing do not of themselves make plants grow: they are but adjuncts or pioneers to the air. We break up the ground with machines, not merely to give the roots a chance to spread themselves, but in order to give the air free passage between the particles of the soil.

The stratum of air just above the ground is constantly absorbing gases from decaying vegetation, which the dews and rains carry down into the earth for the food of plants. The oxygen of the air "causes the particles of soil to yield up their constituent elements for the support of vegetable life. Carbonic acid in the air furnishes plants with carbon, which is the chief element in their constitution." A compost heap would be of little value, were it not for the heat and moisture communicated by the air.

As the air is essential to the germination of plants, it is important that seeds should be planted just deep enough to secure needful moisture, without carrying them beyond the reach of the air. Hence, also, the importance of a thorough pulverization of the soil about the roots of all trees and plants. This is one reason, also, why a stiff clayey soil needs an admixture of sand to loosen its texture, and provide channels for the ingress of air. But without further enumeration of particulars, we conclude that the farmer and the atmosphere have much to do with each other, and that the first should hold the fact in distinguished consideration.

Our Singing Birds.

This is the month which brings back our annual songsters from the warm and shady groves of the tropics where the most of them spend their Winter "season"—gay, frolicking things that they are, loving fun and hilarity, quite as well, and enjoying themselves much more sensibly than a great majority of us who boast the higher intelligence of humanity. Let the wren and the blue-bird, the martin, and the swallow boxes all be in their places. If you have them not, stick up a lot of oyster kegs—every body has or can get them, now-a-days—in the trees for the wrens and blue-birds, put up sundry little shelves—a bit of rough board eight inches square will do—for the phebes in the wood-house or back porch; and have a nice well painted box for the martins. The swallows will take care of themselves under the barn, and stable eaves, through the air holes in the gables, under the edge of the roof inside on the rafters. The more of all these things you have about you, the better. They cheer up the husbandman, please the housewife, gladden the children, and make everything seem happy and joyful.

The tree and the forest birds will be along, also. The meadow lark, the robin, thrush, and blackbird among the larger shade trees, and the orchard; and, best loved of all, the sweet little song sparrow in its quaker-brown coat, opening his music-filled throat in the honeysuckle, or lilac bush under the window, where it intends to nestle for the Summer. Let not a gun, or an idle boy with murderous intent be about your premises. These joyous little birds are among our best benefactors. We may sometimes be annoyed by what we thoughtlessly consider their depredations; but they are only "tolling" their share of the fruits, which their labors in destroying the innumerable tribe of insects that would otherwise have preyed upon them, hereafter entitle them to. Spare then the birds, and invite them to stay with and return to you every Spring with their delightful companionship

Advantages of a Mild Winter.

The Winter now fast gliding away has been remarkable for its mildness. Up to February 12 the weather was, for the most part, like that of an ordinary November. There was an absence of snow, as well as of cold. The ice-dealers had well-grounded fears lest their crop would be cut short. Farmers were anxious for their exposed wheat fields, and were much hindered in getting out fuel and lumber.

But we are now looking out for the *advantages* of such a Winter. And the one which strikes us first, is the saving of fodder it occasions. Throughout the early part of Winter, young cattle and sheep required but little feeding; they much preferred the green food they could glean from the pastures and corn fields. And other stock, confined mostly to the barn, ate less food than usual, in Winter—they were not obliged to eat for feed and for fattening too. An intelligent farmer lately gave it as his opinion, that the daily saving of hay in a neighboring country town, was at least 50 tons. In one of our exchanges, we see it estimated, that the daily saving of hay, in a single county in this State, amounted to one hundred tons. Multiply either of these numbers by the number of days less than usual, that cattle have required feeding, this Winter, and we ascertain, pretty nearly, the hay and money saved in each case by the mild weather.

The saving, to the poor, of food and clothing, and fuel, is an item of no small importance. How many hearts trembled at the approach of the late Winter, coming, as it did, upon the heel of commercial disasters! How many sick and poor thrown out of employment, and with no other means of gaining a livelihood, apprehended suffering from cold and hunger, and saw nothing before them but starvation or crime to avert it! But that long and much dreaded Winter has nearly passed away, and has brought with it far less privation and hardship than was feared. The weather, for the most part, was bright and genial. December and January gave us an almost constant succession of clear, sun-shiny days, with the air pure and bracing—yet not severely cold—and nights of unsurpassed brilliancy. The little of the Winter that remains, may be cold and stormy, yet it cannot be long, for in a few short weeks, the time of the singing of the birds will have come, and the sound of the turtle dove will be heard in the land. Let us not fail to note the hand of Providence, which tempers the wind to the shorn lamb, and in the cup of deserved discipline, mingles so many mercies.

Old Time Agriculture.

Among the books lately added to our library, are two antique and musty volumes which treat of agriculture as conducted several centuries ago. The nearest of the two is "Ellis' Modern Husbandry," published in London, 1744. In reading it, we have been surprised to note how little the husbandmen of the present day have improved on their forefathers. Unquestionably, ours is an age of invention and improvement, but it ought to take all conceit out of us to see how little, after all, our advancement has been. For instance, in the management of turnip crops, on the value of muck and the mode of applying it, on rotation of crops, deep plowing, hop culture, preparing ground for wheat, composting manures, &c., &c., we do not see why this Hertfordshire husbandman did not know about all that we know.

But we now refer to this book more especially to set forth some of its oddities, and to show that farmers in those times busied their minds with some things which we consider of small account. Notice some of the titles of the chapters in this book:

"How a Farmer, by a right Way of plowing, got good Crops of Grain, where there had not been such in the Memory of Man."

"How a Person got poor, and was forced to sell his Land for Want of ploughing it deep enough."

"How a Farmer after four Plowings and Sowings, lost his Crop of Turnips."

"A Particular Account of a great Gain being made by Means of Cole-Seed."

"The cheapest Way of Victualling Harvest-Men."

"How one Farmer broke, and another had like to do the same, by wrong Plowing their Ground," &c.

Take the following as a specimen of the author's style, in treating the last mentioned topic:

"On the Farm before mentioned, it was usual for the former Tenant to give strict Orders to his Ploughmen to plow an Acre and a half at one Journey, or in one Day, before he came Home: accordingly the Ploughman did, but when he was forced to plow large Thoroughs with his wide set Broad-Board Wheel Fallow-Plow, which every Time turned almost sixteen or eighteen Inches wide of Earth, and which should indeed have been rather turned at twice, for then the Ground would have been so broke, that Weeds would have had less Power, to grow and increase. This Mismanagement broke the Farmer, and had like to have done another, but his Eyes got open just in Time, for as soon as he was sensible of his Error, he took in his Fallow Plow narrower, and saved himself from that Ruin which otherwise must have come upon Him. For such Plowing not only keeps the Land sour and hard, but gives Weeds a Foundation to breed and grow luxuriant; because in sour, hard Ground, the Roots of Corn can't strike in their thready fine Fibres with that Freedom and Ease as are requisite to maintain them in a thriving condition; and when Corn is stunted, Weeds will certainly grow predominant; and then follows the great Charge of employing a Number of Weeders a long Time, to the Damage of the Corn and the Impoverishing of the Farmer. But the succeeding Farmer, with his Foot-pecked Shave-plow, plowed the ground into very narrow Thoroughs, by which he laid the Land evener and better than the first Tenant did with his Wheel Fallow-Plow; so that he sowed his Grain in a fine, loose Earth, that caused it to grow a-pace, and outrun the Weeds to his great Advantage."

On page 58, speaking of hop-growing, he says:

"Sometimes, dwarf roses are allowed to grow in low Hedges, in the middle of Hop-Alleys, and if there happen to be a full Crop of them, they may (as they have,) pay the Rent of the whole Hop-Ground, by selling them to the Apothecaries."

Will our hop-growers please make note of this!

In the Chapter headed, "How to make Crams that will whiten Calf's Flesh," he says:

"I will here tell you a way to do this that will make a calf sell for more Money than otherwise. I mean to make a Calf's Flesh which is naturally red, to become white. Take a half Penny's worth of Senna Leaves, and pour a quatern of Gin on them in a Pot, let them stand an Hour to infuse: then, with the Liquor, make Crams with Wheat Flour, and give three of them at a Time, dipped in Milk, in a Morning immediately after suckling, and do the same once next Day, twice in all, and it will purge the Calf and cause its Flesh to become White."

In the Chapter on "Victualling Harvest Men," he says that:

"The Farmer should have ready his March strong stalish Beer, and a June-brewed mild Ale, which being drank in a Mixture, goes a great deal farther, by quenching Thirst better, by reaching the Men's Heart sooner, and keeping them in Health surer."

He then goes on to speak of

"Pickle-Pork as mighty useful to eat with lean Beef, and commonly together becomes an acceptable hearty Dish, with a Plum-Pudding."

What could John Bull do without his mug of beer and a plum-pudding!

We should like to quote many chapters from this simple and honest Husbandman's book; but must lay it aside for the present, to notice briefly the other and more ancient volume. This is styled

"The Best, Sure and Readiest way to make a good Orchard and Garden. London: Printed by Nicholas Okes, for John Harrison, at the Golden Unicorne, in Pater Noster Row, 1631."

This book is chiefly occupied with the details of orchard and garden culture. It gives excellent rules for manuring, and plowing the soil, and for planting, pruning and grafting trees. In connection with one of his plans for laying out a Garden, he says:

"I have shadowed out these for the better capacity of those that are led more with the eye than the mind, craving pardon for the deformity, because I am nothing skilfull either in painting or causing."

Few men have greater faith than he, in the longevity of trees. On this point, here are some good thoughts:

"If, therefore, out of reason grounded upon experience it be made (I think) manifest, but I am sure probable, that a fruit tree in such a soile and site as is described, so planted and trimmed and kept, as is before appointed and duly foiled, shall dure 1000 years why should we not take pains and be at two or three years charges to reape such a commodity and so long lasting.

"Let no man think this to be strange, but peruse and consider the reason. I have apple-trees standing in my little orchard, whose age before my time I can not learne, it is beyond memory tho I have inquired of divers aged men of 80 years and upwards; I asure myself they are not come to their growth by more than two parts of three which I discerne not only by their owne growth, but also by comparing them with the bulk of other trees. * * *

"If my trees be a hundred yeers old, and yet want two hundred of their growth before they leave increasing, which make three hundred, then we must needs resolve that this three hundred yeers are but the third part of a trees' life, because they must have allowed them for their increase one third, another third for their stand, and a third part also for their decay. All which time of a tree amounts to 900 years.

"But every living thing bestows the least part of his age on his growth, and so it must needs be with trees. A man comes not to his full growth and strength before thirty years, and some slender and cleane bodies not till forty, so long also stands his strength, and so long also must he have allowed for decay. * * *

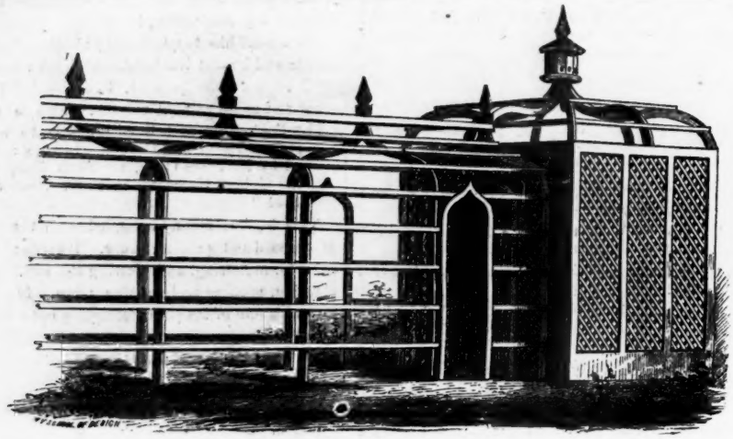
"Ever supposing that he be well kept with necessaries, and from and without straines, bruises and all other dominysing diseases, I will not say upon true report, that physicke holds it possible, that a cleane bodie kept by these 3 doctors—Dr. Diet, Dr. Quiet and Dr. Merryman may live neere a hundred yeares. Neither will I here urge the long yeeres of Methusaleh.

"So that I resolve upon good reason that fruit trees well ordered may live a thousand yeeres and beare fruit, and the longer the more, the greater and better, because his vigor is proud and stronger when his yeeres are manny.

"It is good for some purposes to regard the age of your fruit trees, which you may easily know, till they come to accomplish twenty yeeres, by his knots. Reckon from his roots up to an arme, and so to his topmost twig, and every yeeres growth is distinguished from others by a knot, except lopping or removing doz hinder."

We had marked for quotation several more quaint passages in this volume, but our limits forbid further citation. May we moderns learn to pursue our callings, as farmers or gardeners, with something of the quiet philosophy and earnest enthusiasm which distinguished these husbandmen of old times!

The trials of life are the tests which ascertain how much gold there is in us.



Our Grape Arbor

Last Spring we put up a Grape Arbor with a fixture at the far end of it, to screen a rather unsightly, and always unpleasant building, which chanced to be located by a former proprietor, right in the center of the prettiest part of the garden, and which could not well be changed to any more convenient, and yet out-of-the-way place. This Arbor has been so well liked by others, in short, we have been so well pleased with it ourselves, that we give the above sketch of it as one model for others. Only the rear and three panels are shown. There are eight panels in all, running up to within a few feet of the dwelling. The whole length is sixty feet. Fourteen grape vines—seven on each side—are planted to be trained over it. The square screen in the rear will be covered the present season with sundry trailing plants set out last year.

The general structure is so well shown in the engraving as to need little description. We give the Carpenter's figures as a guide to construction, though any other proportions may be adopted.

Arbor.—The posts are pine, upon locust foot or ground pieces. Hight of the posts above the ground level, 7 feet. Width of the Arbor, 6 feet. The arch pieces are in the form of an Ogee; the center spring, or hight of the top of the arch above the plates, 2 ft. 4 inches. These are terminated at the top by tips sawn out. In building again we would turn these tips round and larger. The arch pieces are cut from 1¼ inch boards, 4 inches in width. The horizontal pieces upon the sides and top, are 2 inches wide.

Screen.—This is 8 feet square, with three panels of lattice work upon each side, made of planed laths. Hight of the screen to the plates, 8 feet 3 inches. Hip roof, with Ogee arches, and a bird-house upon the center, 6 sided, 10 inches in diameter, and 10 inches to the roof. Just far enough back from the entrance to allow passing round it, is a large two-panel screen (not shown) which stands against and hides the privy, so that looking down the Arbor, nothing but lattice-work is seen.

The whole cost of the Arbor and screen, including painting white, was $65. The cost will of course depend upon the size, finish, and economy of time and material in construction.

The grape vine borders are of course upon the outside of the Arbor. Upon the inside is a walk, 3 feet wide, rounded in the middle, laid with cobble stones gathered from the garden. Upon each side of the walk is a row of box edging, leaving flower borders 18 inches wide.

The borders were set with a variety of flowers last season, but after the grape vines produce a heavy shade, only these varieties can be grown which will flourish without full sunlight

New Grapes.

We are pleased to note the increasing interest shown in the introduction of new, hardy grapes, and we intend to keep our readers posted in reference to all of real merit that come within our knowledge.

THE LOGAN GRAPE.

Our attention has lately been called to this new Western variety, named from the county in Ohio where it is supposed to have originated, and in compliment to the memory of the celebrated Mingo chief of that name. It has been propagated, as yet, only to a small extent, but sufficiently so, it is thought, to test its hardiness, early maturity, productiveness and its excellence for the table. The vine grows rapidly, the wood is short-jointed, the young shoots presenting a peculiar, grey appearance, as if withered and nearly dead. Under good cultivation, the clusters are large, but with ordinary management, of only medium size. The berries are jet black, with a blue bloom. The fruit is said to ripen before the Isabella, and by many is preferred to that, but we very much doubt whether it will rank above that standard variety. Mr. Hovey, of Boston, says that at the Annual Exhibition of the Massachusetts Horticultural Society, in September last, "it appeared to be riper than the Delaware at the same time." He represents it as "of good quality." In the Horticulturist for January, Mr. Samuel Miller, an extensive grape grower in Pennsylvania, speaks of it as "quite early: bunch and berry of good size; sweet and excellent."

THE WINSLOW GRAPE.

This has lately been brought to public notice by Dr. Kirtland, of Ohio. He says of it that the berries are small, and arranged in oblong, compact bunches; color coal black, resembling somewhat Miller's Burgundy; the pulp and flavor much like the Clinton, though superior. It was raised from seed by a gentleman in Cleveland. The wood is small, short-jointed, and ripens well before Winter, and is perfectly hardy. It ripens its fruit two weeks before the Diana.

From the above account, which makes it only a little superior to the Clinton, we should not think it of great value, except for extreme northern latitudes, where the finer sorts will not ripen. But we hope to hear further from it.

IN DOOR WORK.

Snatches of Science, In-door....I.

We have learned to look upon the Dining, Kitchen and Wash rooms of a house as only a counterpart of a chemical laboratory. In both of these establishments, are carried on the chemical operations of solution, composition, decomposition, change of form, the application of the laws of reaction, chemical affinity, &c.—with this difference only, that in one the operations are guided by scientific knowledge, in the other by rote, or too often by chance. Mixing and baking bread and pastry is very like compounding acids and bases, and changing their form by heat. Washing or cleansing is akin to the making of solutions by the chemist in his retorts or beaker glasses. Both are really chemical operations, and a knowledge of the principles involved, are necessary to their pleasurable and most successful performance. And these principles may, nay, should be understood by the intelligent housewife, though perchance her cooking manipulator Bridget, may know no more of them than Prof. Silliman's colored man, who washed his apparatus, and indeed did most of his *work*, knew of chemistry.

The field is so extensive that we scarcely know at what point to enter it first.....If we go into the kitchen the first thing that meets our eye—in the pail, in the kettle, in the tub, indeed everywhere—is

WATER.

What is water? "Why, what a simple question! Water is—is—is water. That's all." Yes, but it is a curious, as well as important thing. Were the reader present we could show her that it is not a *simple* substance. To say nothing, now, of the great amount of foreign materials, even in the purest liquid we commonly use, every tiny drop of water is itself a *compound* body made up of two other substances—both of them gasses, (that is, air-like bodies,) and both of them very different from water itself. Every 9 pounds of water contains 8 pounds of a very singular substance (*oxygen*), which is the element in air that makes the fire to burn; while the other pound (*hydrogen*), is that lightest of all gaseous bodies with which balloons are sometimes filled, to make them rise in the air. These two air-like substances, when separated and then brought together, burn with the most intense heat; and in the very act of burning, they combine and condense into water, which is the best extinguisher of fire itself. Could you see these experiments performed, it would, perhaps, add interest to the liquid you are hourly using for so many purposes.

PURE WATER.

Take the purest spring or well water, and put a few drops upon a clean glass plate, dry it over the fire, and it will leave a dirt stain, which will be quite visible on holding the glass up before a strong light. Very little water is so pure as not to leave a spoonful or two of earthy sediment on the bottom of a kettle, when a few pailfuls are evaporated or boiled away. So, also, set a vessel of clear water aside for a few days, in a warm place, and it will become stale or putrid from the decay of minute animals, and of vegetable matter found in all well or spring water. But no sediment will be left on evaporating rain water, or condensed steam upon the glass plate. Distilled water is that obtained by condensing steam. Rain water is simply distilled water that has risen from the earth in vapor, and returned in the condensed form of rain, with no impurites

in it, save a slight amount of dust washed from the air or from the house roof, in its descent.

If people would all use for drinking and cooking, only rain water caught from clean roofs and kept in clean cisterns, it would not only conduce to their health, but many cooking and cleansing operations would be rendered more certain and uniform. But the truth is, we become so accustomed to the spice, or flavor of lime, magnesia, &c., in well water, that real "simon pure" water from the heavens tastes insipid. A habit of using pure rain water would soon render it the most acceptable drink to be found.

IMPURE WATER.

All water having been in contact with the soil, whether in the springs, wells, or brooks, contains *dissolved* matter, and also more or less of materials merely *suspended* in it. The most common impurity held in solution (dissolved) in water is lime. We have chemically examined water from very many wells and brooks, and never yet found any entirely free from lime.

It is a very singular fact that *cold* water will hold dissolved, nearly twice as much lime, as *hot* water. Hence water may be partially freed from lime by boiling it. When heated it loses a part of its dissolving power, and a portion of the lime settles to the bottom of the containing vessel. This accounts for the coating upon tea-kettles in many parts of the country where lime abounds in the water. In such localities, and indeed in all places, we believe it advisable to boil all well or spring water briskly for twenty or thirty minutes, and then allow it to cool and settle before using for drinking, cooking, or washing. Besides partly purifying it from lime, (almost always present as we have said) boiling would remove or destroy organic matter, so productive of disease, especially in newer countries.

Substances held suspended in water.—By these we mean those which are not dissolved, but simply held up by the water, so to speak. If water remains perfectly quiet for some length of time, such substances will mainly settle to the bottom, but the least disturbance again mingles them with the water. Hence it is very often expedient to resort to

STRAINING OR FILTERING WATER.

This can be done almost perfectly by passing it through a few layers of closely woven flannel, or even cotton cloth. But the operation would be tedious if performed daily with all water used for drinking and cooking. We present two very convenient and easily constructed water filterers, the first of which we have used for years.

Fig. 1 is a large barrel or cask. A lower false head, *l*, is fitted in, say 6 or 8 inches from the bottom. This is perforated with very small gimlet holes, over which is placed a layer, *s*, of coarse clean sand, previously washed upon a fine sieve, to remove the finer particles which would otherwise wash through the gimlet holes. Over this sand is a layer, *c*, of broken charcoal; above the charcoal is another layer of the prepared sand, upon the top of which is another false head, *u*. The space above is filled with water, *w*, which gradually filters down into the vacant space, *p*, entirely freed of its impurities. We should add, that when it is impracticable to wash the sand, a white flannel cloth may be placed upon the false head, *l*, under the sand. Upon the right of the filter barrel a glazed stoneware jar, *r*, holding one to two pailfuls, is set its whole depth into the ground or cement of the cellar bottom. This keeps cool at all times. When water is desired for use, it is dipped out of the jar, and the stopcock is then turned to fill it up again, that the water may be cooled against the time it is needed. Such an apparatus can be fitted up in a few hours, and it serves admirably for purifying water, however brackish or bad previously. Dark colored swamp water, on passing through it, comes out clear, limpid and agreeable. Try it, you who are so unfortunate as not to have good well water. The upper layer of sand will need occasional renewing, and where much bad water is passed through, it will be well to frequently renew both sand and charcoal.

Fig. 1.

Fig. 2 represents a still better filtering apparatus, though one not quite so easily constructed. *B* is a board fitted tightly from top to bottom, say six inches to the right side of the middle. A half circle, *o*, is cut out at the bottom of the board, *B*. Another board, *c*, say 15 inches high, is fitted in, six inches to the left of the middle. A bottom piece, pierced with very small gimlet holes, is placed below the two upright boards, say 3 inches above the bottom of the cask. Upon this is placed layers of sand, *s, s*, and coal, *c*, just as described in fig. 1, with a punctured board over them. Water, *m*, is then poured in, and it passes through the opening, *o*, *up* through the sand and coal, and into *n*. Such an apparatus will last a long time, since the sediment separated from the impure water will fall down, leaving the filter free; while in fig 1, this sediment would require frequent removal. A stoneware side vessel for cooling the water may be provided for fig. 2, the same as in fig. 1.

Fig. 2.

Fig. 2 illustrates very well, an excellent mode of constructing cisterns to have water always *pure*. The division may be made of brick-work, laid in water-lime (hydraulic cement). The filtering layers need occupy but a small space in the centre, on one side of the division cell. The water from the roof, conducted into *m*, will filter through into *n* gradually, and except immediately after a heavy fall of rain, or after large drafts upon the purified portion, the water will stand upon a level in both compartments. We hardly need dilate upon the advantages of such an arrangement. Rain water usually washes down considerable quantities of dust, lodged upon the roofs of dwellings. The filtered water will be found admirable for drinking, cooking, and for washing and rinsing clothes *clean*.

Hints for Washing-Day.

If we can write anything to alleviate the evils of the "washing-day," we shall gladly do so, and we think we can. The object of washing is, of course, to remove dirt, which has been quaintly described as "matter in a wrong place." But this cleansing operation is dependant entirely upon chemical principles, and should be done "scientifically" if needless labor and wear and tear of both muscles and fabric would be avoided. We obtained a new "patent" wash-tub last Autumn which is constructed upon philosophical principles, and before discussing other washing topics we will describe "our new wash-tub."


Fig. 3.

The great agent in washing is *water*, but most garments to be washed, are chiefly soiled with oily materials exuded from the skin, which also catch and cement dusty particles. Cold or lukewarm water does not dissolve grease or oily matter. Hence we add to the water some dissolver of the oily dirt or grease, such as potash, soda, lime, &c. Any of the *alkalies* will dissolve oil or grease. To help the memory, we will here say that the word *PSALM* contains the initial letters of the principal *alkalies*, viz., *Potash, Soda, Ammonia, Lime, and Magnesia*. The alkalies are generally used in the mild form of soaps—as potash soap (soft soap,) and soda soap (hard soap.) A chapter on soaps is in contemplation.

But with the use of soaps, much labor in rubbing, pounding &c., is often required. Boiling is generally resorted to. This is founded upon the fact that *hot* water has a far greater dissolving power than *cold* water. Now if there could be any simple contrivance by which clothing could be "rubbed" while in *boiling-hot* water, the filth would be removed with half or a quarter part of

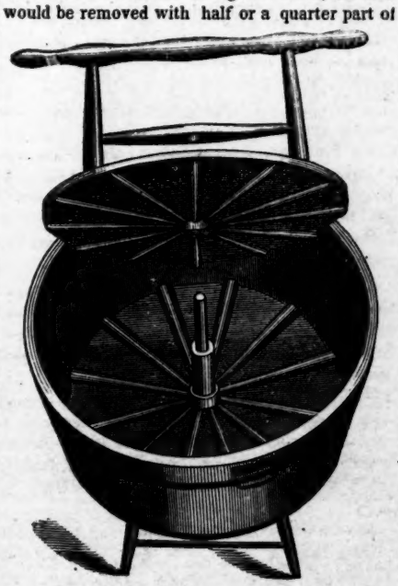


Fig. 4.

the labor—and this is just what is done in "our new wash-tub." The engravings in this column show its construction so plainly as to scarcely need explanation. Fig. 3 is the tub closed, and in Fig. 4, the lid or upper rubber is raised to show the rubbing apparatus.

The clothes are put into the tub with a little

soap previously rubbed on, and water, *boiling-hot*, is poured over them. They are immediately *covered up* by the circular board which slides down over a center guide-pin. *This covering keeps nearly all the heat in*, and by turning the handles backwards and forwards the clothes are rubbed between the ribs fastened in the bottom of the tub and on the under side of the cover. The principle of construction is, that *the garments are rubbed in hot water*, which cannot be done in the ordinary mode, where the water must be cool enough to admit the hands. The hot water has ten-fold the dissolving power of lukewarm water upon the oily matter, and this, combined with friction, does the work with remarkable rapidity and ease, and saves the necessity of after boiling. We have tried the thing and proved its value, and have made the above sketch of "our new tub" to illustrate the principle on which it operates. We have done this without ever having seen the owner of the patent, and now, having given his tub this handsome "Notice" all we ask is, that he should return the compliment to our lady readers, by not letting the patent lie idle, but go to work and get up a lot of the tubs and offer them at such prices that people can afford to buy them. We have not quite got over that $5, 50 we had to pay last Fall for the first and only one we had seen at the time, and we have seen but one or two stray ones on sale since. Four dollars, or four and a half at most, will do, but $5,50 is too much, if we can judge of the cost of manufacture. ....Here endeth chapter first on washing.

Grapes in Winter.

On Thanksgiving Day, Nov. 26th, we received from Mrs. M'Kay, of Naples, Ontario Co., N. Y., a box of Isabella grapes, which the bearer said had been subjected to much hard usage, as they had been carried in a trunk over a long, roundabout journey. They were put up in a pasteboard box, with a sheet of cotton wadding at the bottom and top. We pronounced them very good at the time, and, as an experiment, set them into a room without fire. We have since tried them at sundry times, and today (Jan. 21), find them in very good condition and flavor. By the way, it may be interesting to state, that Mrs. M'Kay gathered over 7,000 pounds of grapes last season, from an acre, containing only 160 vines. They are planted one rod apart, each way, and trained upon simple trellises, consisting of 3 wires, running east and west, upon posts 8 feet apart, with a wooden strip nailed along the top, 8 feet from the ground.

☞ EMILY'S communication on "Housekeeping in the Country," was received too late for last month; it will be found on a preceding page.

Boys' and Girls' Own Columns.

My Ship comes.

Mr. Agriculturist:

What could two little girls do to while away the half hour after supper? The blocks were all put away, so no more houses could be built that night. The paper dolls had all come home from school, and with their beautiful dresses been put away. There was not room at the table for slates and picture-books, and unless somebody would help the little girls, they were likely to have a romping game which would wake up the baby, disturb the family, and end in their being sent to bed. "Perhaps" said one of them, "Aunt Lizzie will tell us a story." So Mary and Emma came and begged for a story. After telling the little girls about the selfish monkey who used pussy's paws to pull the hot chestnuts out of the ashes, Aunt Lizzie said, "I know of a nice play, called "MY SHIP COMES."

"It is played thus: We will all think of several things that begins with the letter A., which could be put in a ship. Then we will each tell what our ship comes laden with, but every one must bring in her ship something different from what has been brought before. And when we have thought of all the things beginning with A, we will take B, and so on through the alphabet."

Both the little girls sat down and Aunt Lizzie began the game in this way.

"My ship comes laden with *Apples*."
Emma said: "My ship comes laden with *Animals*."
Mary said: "My ship comes laden with *Ants*."
Aunty said: "My ship comes with *Almonds*."
Emma said: "My ship comes with *Apes*"
Mary said: "My ship comes with *Acorns*."

Thus they went round until they had exhausted all the A names they could think of, and then they went to B, and brought Bread, Butterflies, Bats, &c., and for each letter they found something to name; though as Emma was not five years old and had never learned to spell much, she did not always get a proper word without help; but they did not mind that.

By the time they reached the letter *P*, Father, Mother, and Johnny were all engaged in the game, and it grew more interesting. At *X*, they were all puzzled; so they gave up the last letters of the alphabet.

When they had played the game through it was nearly bed time. They did not go over it a second time; but if they had done so, the interest of the play would have been, for each one to send a *double* cargo; as Almonds and Axes; Broomsticks, and Books, &c., without repeating words given before.

As I listened to this game of words, I thought it might be a pleasant amusement for the boys and girls who have a column in the *Agriculturist*.

ONE WHO LIKES TO READ THEIR PAGE.

The Editor is much obliged to the correspondent who contributes the above. It is very pretty, very amusing sometimes, and very innocent too, as well as beneficial, because it helps girls and boys to think.... When a number of girls are together, it may be played in this way: Let them all stand up in a row like a spelling-class, and let the one at the head of the row begin and tell what her ship comes laden with, and then the next do the same, and so all through the row; and then round again and again, using only words beginning with *A*. If any one fails to name a cargo, or repeats something that has been given before, or names something that could not be carried in a ship, she sits down. So they go on until every one is *down*, when they all rise up and commence with words beginning with *B*, and so on through the alphabet. This play kept up in a family, or when girls and boys meet together, would soon set them to hunting up and remembering a large list of things for every letter. ED.]

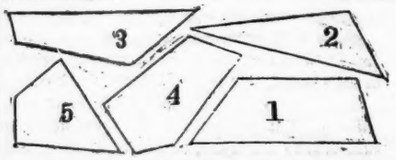
About the Problems.

A few years ago when we had been absent from home traveling for several weeks, we went into our Sunday school room very early one Sabbath morning, to meet the children as they came; but they had found out that we had got home and when we reached the school room, there they all were, and they rushed around us in such a group, with so many pairs of bright eyes beaming a joyful welcome, and so many scores of arms thrust up to shake hands, that we did not know where to begin, or what to do. After trying in vain to speak to each one, we reached out our hands above them, and said "good morning to *all* of you together." What do you think reminded us of this incident? Let us tell you... When letters come our confidential clerk opens all, except such as are marked "Private," and sorts them out into separate lots, some for "mail clerks," some for "immediate answer," some for "Basket items," some for "Good-at-any-time" and so on. All that are from Girls and Boys are put in a separate box. Well, after the middle of the month we take all these letters out together and calling some one to help us we read and sort them. Those that have correct answers are laid in one package and the others are put aside, for when a boy or girl *tries* to get a problem right and fails—as a great many do—we do not tell of it, but are glad that they have tried even, and always hope that

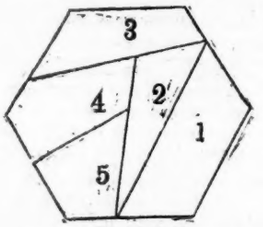
If at first they don't succeed
They'll try, try again,

for it is far better to try and fail at first, than not to try at all....But what called to mind the Sabbath school incident, was the great box *full* of boys' and girls' letters in reply to problems 24, 25, and 26, and to those preceding. Why what a crowd there would be if our young friends who read these columns and write to the Editor, could for once come together. Here are lots of letters from Maine, New-Hampshire, and Massachusetts, and many from Minesota, and Iowa, and Kansas, and Missouri, and Louisiana, and Texas, and all the States between those named; and here's some from Oregon and California, and from Bermuda too. Why what shall we do with them all? We want to speak to all of you, we really love you all, if we have not seen you; but we are worse off than we were on that Sabbath morning. But here's thanks to you all—*all together*—for your trials....We are heartily sorry to tell you that we find not all of your answers to the problems are right this time, but do not be discouraged for that—not at all. You have gained mental strength by the effort you have made, and then your writing a letter has given you very useful practice First let us look at

PROB. 24.—To arrange the following five pieces into a perfect hexagon.



A great many write that this is "too much for them." Others do not get them together rightly. Here is the way.

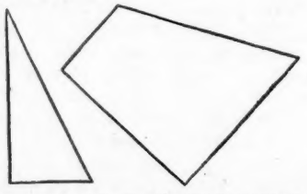


The following are all who have arranged them thus, so far as received and examined to this date (Feb. 17th:) Henry W. Hart, Westchester Co., N. Y.; Benj. Snively, and Martin L. Bossler, Blair Co., Pa.: Peter E. Bird, Hunterdon Co., N. J.; Jacob D. Shank, Clinton Co., O; John H. Hoffecker, Kent Co., Del; F. Sexton, Erie Co, O; G. H. La Fetra, Clinton Co., O; Chs. Truesdale, Erie Co., O; Saml. Christy, Chester Co., Pa; B. F. Smith, Deenfield Co., Ind.; W. Chandler, Lenawee Co., Mich.; Jane E. Peters, Linn Co., Iowa; Wm. Ideson, Moniteau Co., Mo; Sarah Eglee, Fauquier Co., Va; Saml. R. Williams, Markham Co., C. W; Lemuel Withers, Pasquotank Co., N. C; Melville Scott, Lauderdale Co., Tenn; Jas. Ames, Newport Co., R. I.; Christopher Esterly, Cherokee Co., Ala; Amelia Simmons, Bourbon C., Ky.; Nathan Richards, Telfair Co., Geo.; Geo. King, Avoyelles Co., La.; Martha Affleck, Kings Co, L. I.

To problems 25 and 26, an uncounted number of replies have been received—so many that we must wait until the April *Agriculturist* to *examine* them all. We find the word "bouts" was very differently understood, and the answers varied greatly. By "bout" we understand once round the field.

We will give you two questions for study, but having so many answers to 25, 26, and many preceding numbers, for the April issue, we will give you until April 14th to answer 27, and 28, which will be in time for May; and you can in the same letter answer any new problems given in the April *Agriculturist*.

PROB. 27.—(From T. Mix)—Take *ten* pieces like the following—(*five* of each kind)—and put them into one figure perfectly square.



AN ENIGMA.—We here say to our young friends, do not send us any more enigmas; we have generally put them into the kindling basket, and shall continue to do so with the exception of the following one (From S. M. B., Henry Co., Ill.) It refers to an excellent motto which all of you have frequently seen, and which we hope all will remember.

PROB. 28.—Miscellaneous enigma, containing 72 letters.

My 60, 58, 62, 3, 12, 71, is a city in Illinois.
69, 68, 10, 8, 28, 53, 22 is what most are seeking.
43, 66, 45, is a conjunction.
57, 59, 12, 61, 63 is a girl's name.
29, 4, 7, 23, 5 is the name of a flowering shrub.
16, 24, 17 is a tree much used for shade.
1, 6, 55, 41, 10, 44 is a city in New York.
46, 43, 55, 42, 48, is an article of furniture.
21, 37, 45, 19, 34, 72, is a river in New York.
54, 52, 30, 32, 3, is an animal valuable for its fur.
40, 12, 2, is a kind of fruit, seldom grown here.
9, 13, is a pronoun.
70, 11, 42, 14, is a kind of food.
27, 4, 38, 31, is the name of a class of animals.
67, 65, 33, 60, 56, 39, is a place of worship.
15, 18, 32, is a farming tool
5, 50, 36, 25, 23, 2, 65, is a rural habitation.
1, 10, 4, 20, 26, 49, 57, 52, 12, 5, is a branch of study
64, 50, 51, 48, 35, is a Scripture Historian.
47, 34, 33, 11, is a loved place.

A REQUEST.—In writing, please put the answer to *each*

problem on a separate slip of paper (in the same letter,) and your name, County, and P. O., on *each* slip.

Market Review, Weather Notes, &c.

AMERICAN AGRICULTURIST OFFICE,
NEW-YORK, Feb. 23, 1858.

The Wholesale Produce Markets have been characterized by increased activity during the past month. The receipts of produce have been limited, while the demand has been quite brisk, especially for flour and corn. The available supply of flour was good throughout the month, and holders met the wants of buyers, promptly. Hence, prices fluctuated very slightly, though, toward the close sellers have had any existing advantage.....Wheat has been sparingly offered at prices above the views of buyers, and the transactions have consequently been restricted. Corn has advanced, and closes buoyantly, with a reduced supply of desirable lots of the last crops, which is the only kind now sought after in this Market.....Rye, Barley and Oats, have been in moderate request and prices have slightly improved .....Cotton was briskly inquired for at advanced quotations early in the month, but it closes rather quietly, with a tendency in favor of purchasers..... Provisions have been pretty freely dealt in at higher rates.....Groceries attracted considerable attention and the leading articles increased in value..... Hay has been less freely offered and purchased at firmer prices .....Hops and Grass seeds have been moderately sought after at essentially unchanged figures.....Hemp and Wool ruled quiet, without any noticeable alteration .....Other articles of produce have presented no important variation from the previous month.

CURRENT WHOLESALE PRICES.

	Jan. 25.	Feb. 23.
FLOUR—Com'n to Extra State	$4 25 @ 4 60	$4 25 @ 4 65
Common to Fancy Western	4 25 @ 4 50	4 30 @ 4 65
Extra Western	4 45 @ 8 00	4 45 @ 7 50
Fancy to Extra Genesee	4 35 @ 7 00	4 40 @ 7 00
Mixed to Extra Southern	4 50 @ 8 00	4 75 @ 8 25
RYE FLOUR—Fine and Super.	3 00 @ 4 00	3 00 @ 4 00
CORN MEAL	3 00 @ 3 50	3 00 @ 3 50
WHEAT—Canada White	1 10 @ 1 25	1 10 @ 1 25
Western White	1 10 @ 1 35	1 10 @ 1 40
Southern White	1 15 @ 1 38	1 15 @ 1 42½
All kinds of Red	1 00 @ 1 20	96 @ 1 22
CORN—Mixed, old	72 @ 73	None selling.
Yellow, new	65 @ 67	70 @
White new	67 @ 70	70 @ 71
OATS—Western	45 @ 46	45 @ 47
State	42 @ 45	44 @ 46
Southern &c	28 @ 38	28 @ 40
RYE	69 @ 72	70 @ 72½
BARLEY	68 @ 75	70 @ 73
White Beans	1 37½@ 1 40	1 37½@ 1 40
Black eyed Peas, per 2 bush	3 12½@	3 25 @
HAY, in bales, per 100 lbs	55 @ 75	55 @ 80
COTTON—Middlings, per lb	10¾@ 10¾	11¾@ 12
RICE, per 100 lbs	2 75 @ 3 37½	2 75 @ 3 75
HOPS, per lb	5 @ 10	4½@ 9
PORK—Mess, per bbl	14 63 @	16 50 @16 63
Prime per bbl	11 50 @11 75	13 25 @13 40
BEEF—Repacked Mess	10 00 @12 50	12 00 @13 50
County mess	9 00 @10 00	9 50 @11 00
prime	6 00 @ 7 00	6 50 @ 7 50
HOGS, Dressed, per lb	6½@ 6½	6 @ 7¾
Lard, in bbls. per lb	8½@ 9¼	9¾@ 10
BUTTER—Western, per lb	11 @ 15	13 @ 17
State, per lb	12 @ 23	16 @ 23
CHEESE, per lb	6 @ 8	6¾@ 8¾
FEATHERS, Live Geese per lb	38 @ 42	40 @ 46
SEED—Clover, per lb	8¾@ 9	8¾@ 9¼
Timothy, mowed, per bushel	1 75 @ 2 00	2 00 @
Timothy, reaped, per bushel	2 00 @ 2 25	2 25 @ 2 50
Flax, Am. rough, per bush	@ 1 20	1 35 @
SUGAR, Brown, per lb	4 @ 7¾	4¾@ 7
MOLASSES, New-Orleans, prgl	25 @ 27	30 @ 33
COFFEE, Rio, per lb	8 @ 10¾	9¾@ 11¾
TOBACCO—Kentucky, &c. pr lb	6¾@ 18	6¾@ 18
Seed Leaf per lb	9 @ 35	9 @ 35
WOOL-Domestic fleece, per lb.	27 @ 45	27 @ 45
Domestic, pulled, per lb	29 @ 30	20 @ 32
HEMP—Undr'd Amer'n pr ton	@110	100 @110
Dressed American, per ton	140 @165	140 @165
TALLOW, per lb	10 @ 10¼	11 @
OIL CAKE, per ton	34 00 @36 00	35 @ 37
POTATOES—Junes, per bbl	2 25 @ 2 37	2 50 @ 2 75
Mercers, per bbl	3 25 @ 3 75	3 25 @ 3 75
Peach Blow per bbl	2 75 @ 3 00	3 00 @ 3 25
Carters, per bbl	2 50 @ 3 50	3 50 @ 4 00
Nova Scotias, per bushel	85 @ 90	1 00 @ 1 10
Sweet, Del., per bbl	@ 5 50	@ 5 50
ONIONS—Red, per bbl	1 25 @ 1 37	1 50 @ 1 75
White and yellow, per bbl	1 75 @ 3 00	1 75 @ 3 00
CRANBERRIES—Per bbl	7 00 @ 9 00	10 00 @12 00
Hickory Nuts, per bu	2 00 @	2 50 @
APPLES—Common, per bbl	2 50 @ 3 00	2 50 @ 3 00
Spitzenburgs, per bbl	3 50 @ 4 50	5 00 @ 6 00
Greenings, per bbl	3 00 @ 3 50	3 50 @ 4 00
TURNIPS—Ruta bagas, per bbl	50 @	50 @ 62
SQUASHES—Marrow, per bbl	2 25 @ 2 50	
CABBAGES—Per 100	3 00 @ 4 00	5 00 @ 6 00
CELERY—Per dozen	50 @ 75	1 00 @ 1 50
POULTRY—Fowls, per lb	7 @ 12	10 @ 15
Chickens, per lb	8 @ 12	
Ducks, per lb	12 @ 16	18 @ 21
Partridge, per pair	63 @ 75	1 00 @ 1 25
Prairie Hens, per pair		1 00 @ 1 25
Guinea Fowls, per pair	44 @ 50	44 @ 50
Turkeys, per lb	10 @ 14	12 @ 16
Geese, per lb	8 @ 10	10 @ 11
PIGS—Roasters	1 25 @ 2 50	1 25 @ 2 50
VENISON—Carcass, per lb	8 @ 10	12 @ 13

Total receipts of Breadstuffs, and total sales for 24 business days, ending to-day:

	Receipts	*Sales.*
Wheat-flour, bbls	128,000	250,386
Wheat, bush	11,660	108,200
Corn	450,000	570,000
Rye		10,650
Barley		16,000
Oats	21,000	

This statement affords the following comparison of the total receipts in each of the last two months

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
27 bus. days last mon.,	325,125	117,562	372,385	4,050	22,500	30,150
24 bus. days this mon.,	128 000	11.660	450,000			21,000

It also enables us to give the following comparison of the total sales in each of the last two months:

SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*
27 business days last month.	233,190	207.506	483,189	30,213	38,418
23 business days this month,	250,386	108,200	570,000	10.650	16,000

The following is a comparative statement of exports of the leading kinds of Breadstuffs from the port of New-York, from Jan. 1, to Feb. 15:

	1857.	1858.
Wheat Flour, bbls	179.427	197,698
Rye Flour, bbls		821
Corn Meal, bbls	5,797	8,632
Wheat, bushels	375,686	255,908
Corn, bushels	354,100	252,164
Rye, bushels	17,600	

Stock of Articles on hand, in New-York, about Jan. 1.

	1857.	1858.
Coffee, packages	102.049	127,297
Cotton, bales	70,177	13,312
Wheat Flour, barrels	393,160	603,150
Wheat, bushels	531,650	389.000
Corn, bushels	1,967,500	97,000
Hemp, tons		550
Hemp, bales	15,937	22,175
Molasses, hogshead	1,798	4,613
Molasses, barrels	100	4,512
Tar, barrels	unknown	2,000
Resin, Common, barrels	unknown	12,000
Pork, barrels	13,046	10,558
Beef, tierces and barrels	19,488	39.144
Rice, tierces	4,788	4,708
Rice, bags	2,700	3,161
Sugars, hogsheads	10,476	16,076
Sugars, bags	none.	1,400
Sugars, boxes	19,931	8,698
Tobacco, Crude, hogsheads	5,747	4,644

In reference to the Western HOG CROP, returns have been received from one-hundred and six places where packing has closed, and give the following aggregate for each State:

	1856-7.	1857-8.
Sixteen places in Ohio foot up	400,696	516,732
Eleven places in Kentucky foot up	377,016	355,874
Thirty-four places in Indiana foot up	289,388	371,582
Thirty-two in Illinois foot up	335,667	370,557
Thirteen in Missouri foot up	128,494	154,547
	1,491,255	1,769,292
Increase	278,037	

LIVE STOCK MARKETS.—Receipts of Beeves, at the New-York City Markets have been moderate (11,536) for four weeks) but sufficient for the demand. For week ending Jan. 27, receipts were, 2,739; Prices ¼c. lower,—Feb. 3, 3,067; ¼c. advance.—Feb. 10, 2,700; ¼c. advance.—Feb. 17, 3,030; ¼c. decline. Latest selling prices per lb for estimated dressed weight; Premium Cattle, 11¼c.@ 12c.; First quality, 10c.@10¼c.; Medium quality 9c.@9¼c.; Poor quality 7c.@8¼c.; Average of all qualities 9c. or ¼c.@¼c. higher than last month.

SHEEP AND LAMBS.—Receipts of live animals have fallen off to only 26,035 for the four weeks just ended. Dead animals arrive so freely that prices of live stock have advanced but little. They are now worth 4c.@5c. per lb. *live* weight. Extra animals bring 5½c.

Hogs are in less supply and rule higher. Corn hogs are now worth 5¼c.@6¼c. gross. Distillery bring 5c.@5¼. which is near 1c. higher than four weeks ago.

THE WEATHER has mainly been fine for the season, with very little snow and but few really cold days. The mercury has only reached within 6° of zero. As we now write, the ground is nearly covered with snow making passable sleighing; the first of the season. Very little rain has fallen since the 16th of January.

OUR Condensed weather notes read: Jan. 26 to 28 mild; 30 and 31 clear and cooler; Feb. 1 cool, thermometer 16° A. M., milder P. M., with rain at night; 2 fog with light rain A. M.; 3 to 10 mostly clear with frosty nights, the ground closed; 11 and 12 cold drys, mercury standing at 12° each morning; 13 cloudy, thermometer 18°; 14 1 inch snow fell; 15 and 16 clear and cool; 17 cold, mercury at 10° A. M.; 18 clear and nearly as cold. People filling ice houses, no previous freezings making sufficient ice; 19 and 20 cold snow storm, 6 inches fell on a level; 21 clear and moderate; 22 1 inch more snow fell during previous night; clear and mild; 23 coldest morning of the season, thermometer marking 6°; clear and very pleasant.

☞ **The actual circulation of the Agriculturist to regular subscribers, is believed to be much larger than that of any other Agricultural or Horticultural Journal in the world.**

Advertisements.

TERMS—(invariably cash before insertion):
Twenty-five cents per line of *space* for each insertion.
By the column or half column, $30 per column.
☞ Business Notices *Fifty* cents a line.
Advertisements to be sure of insertion must be received at latest by the 18th of the preceding month.

GREEN-HOUSE DEPARTMENT CONTINUED.

there may be no error in the varities which they cultivate in pots.

No. 2.—Is devoted exclusively to Camellias, which are cultivated in large quantities.

No. 3.—Is devoted partly to Camellias, and partly to Azaleas and other Greenhouse plants.

No. 4—To Heaths and other plants.

No. 5.—To Orchideous and Stove plants.

No. 6.—To large specimen plants.

No. 7.—To propagation.

No. 8.—To Roses and bedding plants.

No. 9.—To general stock.

EXOTIC GRAPES.

The following are the best sorts for culture under glass:—

1 year old, 50 cents each; 2 do., 75 cents each; extra strong, $1.

Black Hamburg.	Flamed Tokay.
Black Prince.	White Sweetwater.
Golden Chasselas.	Constantia of Zante.
Grizzly Frontignan.	Red Chasselas.
Royal Muscadine.	Xeres.
Muscat of Alexandria.	Zinfandel.

GREENHOUSE PLANTS.

Below will be found a selection of some of the best varieties, some of which are suitable for window culture, some for cheap houses, and others for stores and conservatories.

Abutilon Van Houttii	.25 to 1.00	Echites picta	1.00
" insigne	0.50	" nutans	1.00
Acacia armata	.0.25 to 1 00	" Russellianum elegans	1.00
" intermedia	.0.28 to 1.00	" truncatum spectabile	1.00
" cultriformis	1.00	Erythrina caffrii	0.50
" longinima	0.60	Euphorbia sanguinea	0.50
" grandis	0.50	Francisca gracilis	0.50
" koi Leopold	1.00	" contertiflora	0.50
" squarrosa citrina	0.50	" angusta	0.75
Andisia crenulata	.0.50 to 3.00	Fuchsia Duchesse of Lan-	
Azalea lateritia	.0.38 to 3.00	" caster	0.50
" nibso plena	.0.50 to 3.0	" Honeybell	0.50
" Gledstanerii	1.00	" Commodore	0.50
" wirzana	1.00	" Mrs. Taite	0.50
" amœna	1.00	" Psyche	0.50
" vittata	1.00	" Ajax	0.50
" Beauty of Europe	1.00	" Empress	0.50
" Narcissæflora	1.00	" Joan of Arc	0.50
" Stanlyana	1.00	" Glory	0.50
" rameutacea	1.00	" Lady Franklin	0.50
Bouvardya longifiora	0.50	" Incomparable (Mayle,)	0.50
Brunsvigea Josephina	1.00	" Queen Victoria	1.00
Camellia alba plena	0.75	Gardenia Devoniensis	0.50
" candidissima	0.75	" Whitfieldii	1.00
" Chandlerii	1.00	" Fortunii	0.50
" Duchess of Orleans	0.75	Genista fragrans	0.50
" Florida	1.00	Gloxinia Imperialis	1.00
" Feastii	1.00	" Wilsonii	1.00
" Hempsteadii	0.75	" Nobilis	1.00
" Henri Favre	1.00	" Leonie Van Houtte	1.00
" Jeffersonii	1.00	" Grand Sultan	1.00
" Mrs. Abby Wilder	1.00	Grevillea Tillermanii	0.50
" Princesse Bahchiochi	1.00	" Sternbergii	0.50
" Wilderii	1.00	" sulphurea	0.50
Campylobotrys discolor	0.50	" lavendulacea	0.50
Cinerarin Lady Hume Camp-		Hoya imperialis	2.00
" bell	0.20	" picta	3.00
" Rosy morn	0.75	Hydrangea Japonica	0.38
" Resplendant	0.50	Ixora coccinea superba	1.00
" Advancer	0.50	" erocata	0.50
" Lady Camoys	0.50	" Javanica	1.00
" Estella	0 50	Lilium longiflorum	0.50
Cissus discolor	0.50	" lancifolium album	1.00
Clerodendron fallax	0.50	" punctatum	1.00
" Bungeii	0.50	" rubrum	1.00
" Clethra arborea	0.50	" speciosum	1.00
Clivia nobilis	1.00	Medinella, erythrophylla	0.50
Correa Cavendishii	0.75	" speciosa	0.50
" speciosa	0.50	Musa Cavendishii	2.00
" Lindleyana	1.50	" dacca	2.00
" brilliant	1.00	Pimelia spectabile	1.00
" delicata	0.50	Rhopala elegans	0.50
Croton pictum	0 75	Rojiera amœna	0.50
Cyclamen Persicum	0.25	" cordata	0.75
Daphne odora	0 50	Rondolet a speciosa	0.50
" rubra	1 00	Stephanotus floribundus	1.00
Dielytra spectabilis	0.50	Thyrsacanthus lilacina	0.75
Diplacus grandiflorus	1.00	" rutilans	0 50
Diplodenia crassinoda	1.00	Tremandra verticillata	0.75
Dracæna terminalis	1.00	Viburnum odoratissimum	1.00
" nobilis	1 00	" suspensum	0.50

Our collection embraces the finest new Pelargoniums and all the choicest bedding plants, such as Geraniums, Chrysanthemums, Verbenas, Phloxes, Gladiolus, Amaryllis, Petunias, Heliotropes, Salvias, &c. No lawn is at all, complete which has not its surface variegated with some of the many brilliant bedding plants now cultivated.

It is scarcely proper for the Proprietors to speak of their mode of dealing; they leave that to those who know them. They will simply say, that they do not trust their sales to irresponsible men, whose only object is to make large commissions, irrespective of the interest of the purchaser or the reputation of the proprietors. Reputation and character are of more value in their eyes than money. The first two they wish to secure by fair and liberal dealing—the last must take care of itself.

TRANSPLANTING

Is carefully done at the Nursery, but as the planting is often improperly done by the purchaser, and the trees consequently die, it is expressly understood that the proprietors do not ensure the living of any trees. Directions for transplanting will be found on the cover of their catalogue.

It will be born in mind that the varieties given above are but a small part of the catalogue, which can be obtained on application, as below.

Where very large quantities are wanted by dealers, or others, a liberal discount will be made.

SMALL TREES CAN BE FURNISHED AT HALF THE ABOVE PRICES.

TERMS CASH.

For packing, a charge will be made simply covering cost, and the trees will be delivered at Fulton Market (New-York City) free of freight.

Priced and detailed catalogues will be furnished on the grounds, or at the office of the Bridgeport Insurance Company, 34 Wall street, New-York City.

FACILITIES OF COMMUNICATION WITH NEW-YORK.

Visitors can reach Flushing from Fulton Market slip, New-York, by boat and railroad six times per day. Time of transit, 50 minutes; leaving both New York and Flushing at 8, 10, 1, 4, and 5½ o'clock.

ORNAMENTAL TREES AND PLANTS FOR SPRING OF 1858.

EVERGREEN, DECIDUOUS, WEEPING, &c.

Ellwanger & Barry, Rochester, N. Y., beg to inform Nurserymen, Landscape Gardeners and Planters generally, that their Stock of the following articles is large, and will be sold at prices to suit the times.

1st—EVERGREENS.

NORWAY SPRUCE, of various sizes from one to six feet high, well formed specimens, in quantities from one dozen to 100,000.

PINES, Austrian, Scotch, and White or Weymouth, from 8 to 12 inches—frequently transplanted.

ARBOR VITÆ, Siberian, 2 to 3 feet; this is a beautiful hardy tree.

" " American, 1½ to 4 feet, for hedges, screens, &c.

PINSAPO SPRUCE, 12 to 18 inches high, quite broad and stout—a fine rare tree.

AFRICAN OR SILVER CEDAR, 2 to 3 feet high. This is a noble tree, resembling the *Cedar of Lebanon*, but hardier and of more rapid growth.

JAPAN CEDAR, (Cryptomeria Japonica,) 3 to 4 feet high, (in pots,) not quite hardy at Rochester.

CHILI PINE, (Auracaria Imbricata,) 12 to 18 inches, stout and bushy, (in pots,) not quite hardy at Rochester.

Besides these we can furnish a great number of others, for which we refer to Descriptive Catalogue No 2.

☞ See also advertisement of California Evergreens.

2nd—DECIDUOUS TREES.

Scotch Elm, 8 to 10 feet,	Snowy Mespilus,
Huntington Elm, 8 to 10 feet,	Profused flowering do. grafted 4
Tulip tree, 8 feet,	to 5 feet high—a fine small lawn
Magnolia acuminata, 4 to 5 ft.	tree.
Purple leaved Maple, 4 to 5 ft.	Rosemary leaved Willow, 5 feet
Gold striped leaved do. 4 to 5 ft.	grafted-a beautiful feathery tree

3d—WEEPING OR DROOPING TREES.

We have the pleasure of offering a fine stock of the following graceful trees so desirable for lawns, cemeteries, &c.:

Weeping European Ash,	Weeping European Birch,
Weeping Lentiscus leaved Ash,	Weeping American Willow,
Weeping Mountain Ash,	Weeping Kilmarnock Willow,
Weeping Poplar,	Weeping cherry, ever blooming,
Weeping Linden,	Weeping Heart Cherry.

The above will be supplied in quantities to suit purchasers. Priced Catalogues sent gratis to those who enclose one stamp.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

TO AMATEURS AND PLANTERS. CHOICE TREES, SHRUBS AND PLANTS.

We have, as usual, an extensive and varied assortment of FRUIT TREES, SMALL FRUITS, ESCULENT ROOTS, FLOWERING SHRUBS, ROSES, DAHLIAS, &c. Also, ORNAMENTAL TREES, EVERGREEN TREES, WEEPING TREES, and all new varieties of STRAWBERRIES, RASPBERRIES, GRAPES, CURRANTS, GOOSEBERRIES, BLACKBERRIES, MULBERRIES, &c., &c. These will be disposed of at reasonable prices to amateurs and others by the dozen or hundred. Catalogues sent on application, by enclosing a stamp for each.

A. FROST & CO.
Genesee Valley Nurseries, Rochester, N. Y.

ESTABLISHED, 1828. REBUILT AND ENLARGED, 1856

BRID-GEMAN'S HORTICULTURAL ESTABLISHMENT,

Nos. 876 and 878 Broadway, NEW-YORK.

FIELD, HERB, VEGETABLE AND FLOWER SEEDS

Fruit and Ornamental Trees,

GREENHOUSE PLANTS, &c., &c.

Every article appertaining to the business furnished at reasonable rates, and warranted as represented. The seeds are grown to order by experienced cultivators, and fully tested before being offered.

For sale by the quantity or in packages for retail trade.

Goods packed securely to go any distance. Orders by mail will be attended to with exactness and promptitude.

Catalogues furnished on application.

New Verbenas.

The subscriber would take pleasure in calling the attention of Amateur Florists and all lovers of this popular bedding plant, to the following new and superb foreign varieties.

Geant des Battailles, deep scarlet crimson, one of the finest verbenas yet introduced.

Madm. Abdt, deep purple maroon, extra fine for vase culture or bedding.

Charles Dickens, rosy lilac, darker center, large eye, fine for pot culture or bedding.

Celestial, pale rose, very large truss, very free.

Lady Palmerston, delicate pale blue, with large white center.

Le Gondolier, soft rosy carmine, fine truss.

King of roses, mottled rose, good form.

Also a couple of seedlings raised by the subscriber.

Chieftain, dark maroon crimson, light eye.

Black Prince, deep indigo purple, very dark.

The above at 25 cents each, or the set for $2.

Verbenas in packages as follows.

Package No. 1. 12 first class, including two of the above novelties.....$1 75.
Same by mail post-paid.....2 00.

Package No. 2. 25 first class, including four of the above novelties.....$3 00
Same by mail post-paid.....3 50

Package No. 3. 50 first class, including six of the above novelties.....$5 00
Same by mail post-paid.....6 00

Well established plants, if ordered early in the season, can be forwarded by mail a journey of from three to four days without the slightest injury. To those who order either of the above packages in *March with cash enclosed*, a package of choice Verbena seed will be added. Price of seed per package to those not ordering plants 25 cents. Plants ordered in March and placed in Hot-beds will make fine plants for bedding out in May.

All orders enclosing cash shall be promptly and faithfully attended to. Descriptive Catalogues now ready and forwarded to all making application. Address DEXTER SNOW.
Chicopee, Hampden Co., Mass.

ROSES AND DAHLIAS.

HYBRID PERPETUAL ROSES.
MOSS ROSES.
HYBRID CHINA ROSES.

And other classes, a large stock of strong plants

DAHLIAS, a superb collection embracing the finest new English and French varieties. The stock of the above is large, and will be sold at very low rates.

Descriptive priced Catalogues forwarded gratis to all who enclose one stamp.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

Flower Seeds! Flower Seeds!

J. M. THOBBURN & CO., have just published their CATALOGUE of FLOWER SEEDS for 1858 with practical directions for their Culture, containing over 1,000 VARIETIES, and many of them quite NEW AND RARE, among which are the following GEMS.

ACROCLINUM ROSEUM, *New Rhodanthe like Flower, per pkt. 25 cts*
ALONSOA WARCZEWICZII, *bright Crimson*, 25
LINUM GRANDIFLORUM KERMESINUM, *beautiful crimson flax*, 25
LINUM LEWISII VARIEGATA, *splendid variegated* 25
PHLOX DRUMMONDII ALBA
" LEOPOLDINA NAPOLEON } *all magnificent, each* 10
" QUEEN VICTORIA & OCULATA
PORTULACA CARYAPHYLLOIDES, *new carnation, striped.* 10
ASTERS INCOMPARABILIS, &c., *seven distinct fine German sorts.* 10
STOCKS GRANDIFLORA, &c., *six beautiful German sorts.* 10
LEPTOSIPHON AUREUS AND LUTEUS, *both new, each* 10
TROPŒOLUM MINUS COCCINEUS, *hardy Dwarf, crimson.* 10
IPOMŒA TRICOLOR NOVA, *new, beautiful striped hardy Ipomœa.* 25
WHITLAVIA GRANDIFLORA, *beautful blue hardy annual.* 10
DATURA METELOIDES, *new hardy annual.* 25
SAPONATIA CAMPESTRIS, *new Green-House annuals.* 25.

We have but a limited supply of the above SEEDS and orders will be filled in rotation

On receipt of order covering the amount, we send the above postage paid, as also the following:

COLLECTIONS OF

100 Varieties of Annual, Biennial and Perennials, for....$4.00
50 Varieties of Annual, Biennial and Perennials, for....$2.00
25 Varieties of Annuals for....$1.00
10 Varieties of Annuals for.... 50
20 Varieties of New and Rare Annuals for....$2.00
20 Varieties of Choice Green-House Seeds for....$2.50
40 Varieties of Choice Green-House Seeds for....$5.00
20 Varieties of American Seeds for European Culture....$2.00

ALSO:

Choice Assortments for Rockwork....$1,00
Choice Assortments of Aquatics....6.00
Choice Assortments of Ornamental Grasses....1,00
Choice Assortments of Imported German Asters and Stocks from....75 to $1.50

OUR OWN SELECTION.

We can still supply small quantities of

DANIEL O'ROURKE & SANGSTER'S No. 1 Peas, each at 40c. per qt.
NAPOLEON & EUGENIE Peas, each at 75c. per qt
HARRISON'S GLORY AND PERFECTION Peas, each at 50c, per qt
FAIRBEARD'S CHAMPION OF ENGLAND Peas, each at 30c. per qt
RED, WHITE AND YELLOW ONION, from $1 50 to $2 50 per lb
HUBBARD SQUASH, 25c. per oz
LONG ORANGE CARROT, at $1,00 per lb
AFRICAN IMPHEE, true, at $1 00 per lb
SORGHUM OR CHINESE SUGAR CANE, at 25c. per lb
HEMLOCK TREE SEED (clean), at 75c. p r oz
WEYMOUTH PINE (clean seed), at $3,00 per lb
NORWAY SPRUCE, at $1,50 per lb.
EUROPEAN SILVER FIR, at $1,50 per lb
DECIDUOUS CYPRESS, at 50c. per qt
&c., &c., &c.

J. M. THORBURN & CO.
15 John St., New-York.

☞ Catalogues will be mailed to applicants enclosing a postage stamp, please say whether a Flower or Vegetable Seed Catalogue is wanted.

GARDEN, FIELD AND FLOWER SEEDS.

The subscriber offers a full assortment of Garden. Field and Flower Seeds of the growth of 1857 and of the very best qualities, and in addition to all the standard varieties, will be found many novelties. for sale Wholesale and Retail. Orders by mail attended to immediately

PEAS—choice and new varieties, Extra Early Daniel O'Rourke, Champion of England, Carters Victoria, Hairs' Defiance, Dwarf Sugar, Tall Sugar, Hairs' Dwarf Blue Mammoth, Harrison's Glory, Harrison's Perfection, Epps' Monarch, Epps' Lord Raglan, British Queen, with all other varieties

CAULIFLOWER—Early Paris, Nonpariel and Alma.

CABBAGE—Early Wakefield, Early Ox Heart, Enfield Market and Winningstadt.

CORN—King Philip, Early Darlings, Constantinople and Stowell's Evergreen

TURNIPS—Ashcroft's Swede, Rivers Sweedish Stubble and Waites Eclipse.

Prize Cucumbers for frames,

Winter Cherry or Strawberry Tomato,

New-Zealand Spinach.

Potato Seed German and English.

OATS—Poland, Potato and other choice varieties.

POTATOES—Prince Albert's which we highly recommend, (Ash Leaf Kidney, imported) Early Dikeman, Early June, Dover, Mercer, and all other varieties.

SPRING WHEAT—Golden Drop or Fife, Sea, Canada Clubb, &c.

SPRING BARLEY. SPRING RYE.

TOBACCO Seed, Havanna and Connecticut Seed Leaf.

SPRING and WINTER VETCHES or TARES—Broom Corn, Spring Buckwheat, Cotton Seed, &c.

FRUIT SEEDS, Apple, Pear, Quince, Currant, Gooseberry, Raspberry and Strawberry Seed Peach, Plum and Apricot Pits.

OSAGE ORANGE, Buckthorn, Yellow and Honey Locust, Chinese Arbor Vitæ.

GRASS SEEDS, Hungarian and American Millet, Green, Kentucky Blue or June, Orchard, Ray, Italian and Perennial, Foul Meadow, Sweet Scented Vernal, Fine Mixed Lawn, Red Top, Timothy or Herds. &c.

CLOVERS, Large and Medium Red, White Dutch, Luzern or French Sainfoin, Alsike, Crimson, Yellow Trefoil, &c.

ONION SETTS Red and Yellow, Top or Button and Potato Onions.

RHUBARB ROOTS, Myatt's Victoria and Linnæus, Imported.

ASPARAGUS ROOTS—Cabbage, Cauliflower, Egg and Tomato Plants furnished in season.

Everything in my line furnished and at reasonable rates.

A Catalogue containing a full list of seeds and prices furnished on application.

AFRICAN IMPHEE, genuine as raised by Leonard M. Wray, One Dollar per pound.

CHINESE SUGAR CANE—American and Imported, 25 and 40 cents per pound.

R. L. ALLEN
191 Water-St New-York.

Garden Vegetable, Herb and Flower Seeds.

The subscriber has now on hand a full assortment of all the most desirable species and varieties of Vegetable, Herb and Flower Seeds all warranted fresh and true to name. Orders by mail will receive immediate attention New price Catalogues furnished on application.

ALFRED BRIDGEMAN,
No. 876 Broadway, New-York.

Field & Garden Seeds.—A Choice Variety.

PRINCE ALBERT POTATOES, and do not Rot, very Prolific. Sold By GRIFFING BROTHER & CO.
60 Cortland Street, New-York.

FINE HARDY BORDER PLANTS.

Phloxes 150 of the most beautiful varieties.

CHRYSANTHEMUMS, 70 of the finest pompone varieties and 25 of the large. We give special attention to these—importing annually the best new varieties from abroad.

HOLLYHOCKS, superb double varieties, of all colors, perfect as dahlias.

DIELYTRA SPECTABILIS.—This plant proves to be as hardy as a common Peony, is and one of the most remarkable and beautiful of all border plants. Over 10,000 strong plants for sale.

Besides the above, we can supply over 200 other choice perennial border plants, selected with great care and discrimination.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

CONCORD GRAPE.

This new seedling maintains its reputation as the best *hardy grape*. It received the first Premium of $20 as "the best hardy seedling grape equal or superior to the Isabella," at the State Fair of the Mass. Agricultural Society, Oct. 1857. The Wine from this grape also received the first Premium. It has a sherry gout, and is pronounced by good judges to be of excellent quality. This grape is perfectly hardy, having withstood the severe Winter's of 1855-56, when the Isabella, Diana and other out door grapes were killed to the ground in the garden of the proprietor.

The originator has a fine stock for sale. Price for strong plants of one year, $10 per dozen, $1 single plants. Older plants $2 to $3 each. A liberal discount made to the trade.

Be sure to get your plants from some responsible dealer, any quantity of spurious vines have been sold as Concord even in the vicinity of its production.

E. W. BULL, Concord, Mass.

Pear Trees for Sale.

I Shall Receive about the 1st of March, from the most Reliable Nurseries in France, 3,000 Dwarf Pear Trees, grafted on Quince Stocks of the following Varieties.

BARTLETT.—Large; buttery and melting, with rich, musky flavor; growth erect, and bears abundantly; does finely on Quince. September.

BEURRE DIEL.—Large, buttery and rich; dull yellow, dotted; a strong and rapid grower, fine on Quince. October to December.

BELLE LUCRATIVE (FOUDANTE D'AUTOMNE.)—Medium size; yellowish green, slightly russetted; melting and fine; good grower and bearer; does well on Quince; first quality. September an October.

DUCHESSE D'ANGOULEME.—The largest of all good pears; greenish yellow; makes a beautiful tree; does best on Quince. October and November.

DOYENNE BOUSSOCK.—Large and delicious, somewhat like a very large white Doyenne; a good grower, succeeds well on Quince. October.

LOUISE BONNE DE JERSEY.—Large; yellowish green, with a red cheek; juicy, buttery and rich; grows vigorously on Quince, and is one of the very best. September and October.

SECKEL.—Small; rich, yellowish brown; good grower and bearer; the very best. September and October.

VAN MON'S LEON LE CLERC.—Very large; melting, buttery and rich; vigorous grower and productive; grows well on Quice. October, November.

BEURRE D'AREMBERG.—Large, rich and melting, with vinous flavor; one of the best Winter pears; vigorous and productive: does well on Quince, December to January.

GLOUT MORCEAU.—Large; sweet, melting and buttery; vigorous and productive; does finely on Quince December.

PRICE—For Lots of 25 or less, 40 cents each
For Lots of 25 to 50 35 cents each.
For Lots of 100 30 cents each.

Also a large assortment of the best varieties of RASPBERRY; BLACKBERRY, STRAWBERRY and RHUBARB PLANTS.

Together with a large and select assortment of reliable Field, Garden and Flower Seeds. For Sale by H. RALPH.
Union Agricultural Warehouse and Seed Store.
No. 23 Fulton Street New-York,

Rare Evergreen Trees.
Of California, &c.

We have the pleasure of offering a moderate stock of the following rare and desirable trees of California, Oregon, &c All are Seedlings, grown in pots, and in perfect health and vigor. Can be forwarded any distance with the balls unbroken.

WASHINGTONIA, (Sequoia, Wellingtonia, &c.) The famous "big tree" of California—strong bushy plants from 8 to 12 inches—this proves hardy here.

CUPRESSUS LAWSONIANA, 8 to 10 inches, one of the most elegant of this genus yet discovered.

LIBOCEDRUS DECURRENS, of Torrey, (Thuja gigantea,) six inches.

THUJA MACROCARPA, 8 to 15 inches.
do ARTICULATA, 10 to 12 do.

ABIES GRANDIS, 1 year Seedlings, well ripened, and will bear carriage.

PINUS BENTHAMIANA, 2 year Seedlings.
do LAMBERTIANA, 2 do do.
do TUBERCULATA, 2 do do.
do JEFFREYI, 2 do do.
do MONTICOLA, 2 do do.
do SABINIANA, 2 do do. 6 to 8 inches.

For complete priced lists, we refer to our Catalogue No 2, which will be sent gratis to all who apply and enclose one stamp.

ELLWANGER & BARRY
Mount Hope Nurseries, Rochester, N. Y.

New-Cannan Nurseries.

The subscribers would invite attention to their Nursery stock, consisting of

100,000 Apple trees from 2 to 5 years from the bud or graft:
40,000 Peach trees, 1 year from the bud:
20,000 " 2 years "

Pear trees, Standard and Dwarf, Cherry, Apricot and Quince trees. Also 20,000 American Arbor Vitæ from three to five feet high (twice transplanted), Norway Spruce and other Ornamental trees. Address

STEPHEN HOYT & CO.,
New Cannan Feb. 20, 1858. New-Cannan, Ct.

TO FRUIT GROWERS.—SPRING OF 1858.

In addition to our general stock of Fruit Trees, we solicit the attention of Planters to the following articles in particular, the stock of which is extensive, and of the finest descriptions:

PEARS ON QUINCE, *Dwarfs and Pyramids*, 2 to 3 years' growth; Trees of bearing size can ge supplied of a few sorts.

CHERRIES ON MAHALEB, *Dwarfs and Pyramids*, very strong and well formed, all the best sorts in cultivation.

FOREIGN GRAPES for Vineries—strong, 2 year old plants, in pots, from eyes, all the popular varieties.

STRAWBERRIES, upwards of 40 varieties, including McAvoy's Superior, Longworth's Prolific, Hooker's Seedling, Genesee, Jenny Lind Scott's Seedling, &c; also, the finest French and English varieties, including *Trollope's Victoria*, and *Triomphe de Gand*, two superb, hardy and prolific varieties.

RASPBERRIES—*Brinkle's Orange*, the hardiest and best light colored variety known; also, *Merveille de 4 Saisons* and *Belle de Fontenay*, the two best autumnal sorts, superb large fruits and prolific

All these fruits have been propagated and grown with the most scrupulous regard for accuracy, and may be relied upon. Early orders are solicited.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

NOTICE TO ORCHARDISTS.

25,000 PEACH TREES, ONE YEAR FROM THE BUD, OF STRONG GROWTH.

Being always engaged in the culture of the fruit for market, purchasers may rely upon obtaining the varieties best adapted to their interest

20,000 Osage Orange plants, 2 years growth, twice cut back and root pruned. ASHER HANCE & SON,
Rumsom Nurseries, near Red Bank,
Monmouth Co., N. J

Pear Seeds and Seedlings.

Good healthy pear seedlings, 1 year $8 per 1,000, $75 per 10,000.
Do. do. do. 2 years $15 per 1,000, $140 per 10,000
New-England Pear Seeds of prime quality for Spring sowing $5 per quart.

Norway Spruce, Scotch Larch and Fir, Pines, &c., Apple, Mazzard, Plum, Angers, Quince, Mahaleb, Paradise and Doucin, stocks of the best quality. Catalogues to any address. Carriage paid to New-York or Boston.

B. M. WATSON, Old Colony Nurseries,
Plymouth, Mass.

CHOICE PEACH TREES.

I have a Few Hundred very choice Peach Trees, from the most healthy stock for my own use, but will sell *two*, for want of room to set; or will exchange for any other kind of fruit trees. CHARLES L. DAVIS,
January 23d, 1858. Tarrytown, N. Y.

Raspberries—Strawberries—Rhubarb.

BLACKBERRIES—CURRANTS, &c.—a choice assortment including

Brinkles Orange Raspberry.

A new variety, unequalled in flavor and beauty—also very vigorous and productive—is considered by many as the very best, also the THUNDERER—CUSHING—AND COL. WILDER—

AND

Myatts Linnæus Rhubarb.

An English variety—particularly tender, fine flavored and productive—Chas. Downing Esq., states it to be the best kind for Market or Garden. See his article in HORTICULTURIST, last August. Also

Strawberries.

HOVEYS Seedling—Boston Pine—Large Early Scarlet—PEABODY'S New Seedling.

BLACKBERRIES—New-Rochelle and NEWMAN'S Thornless—Black Naples Currants, &c

The above plants are offered to the trade, Market Gardeners and others. Wholesale and retail. Priced Catalogues furnished on application. FREEMAN & KENDALL.
Ravenswood Fruit Garden—Ravenswood, L. I

We have visited Messrs. Freeman & Kendall's Fruit Gardens from which they are now offering to sell plants, and we can say their Plants are well grown and very superior varieties. The Orange Raspberry and Linnæus Rhubarb particularly. We take pleasure in recommending them to the public.

CHARLES DOWNING, Newburg.
C. W. GRANT, Iona, near Peekskill.

CHERRY CURRANTS.

The undersigned would call the attention of all fruit growers and dealers to his fine stock of

THE GENUINE CHERRY CURRANT

for sale at $15 per hundred, selected one year old plants.
$10 per hundred fine well rooted plants of

A SECOND SIZE.

Specimens of the fruit grown by the undersigned, were exhibited last Summer at the Farmers Club, and Taylor's Saloon, New-York, where they attracted marked attention. See AGRICULTURIST for 1857, page 184.

CHARLES F. ERHARD
Ravenswood, L. I.

Strawberry Plants for Sale.

All the best varieties—embracing LARGE EARLY SCARLET, HOVEY'S ALBANY, GENESEE and WALKERS Seedlings, MOYAMENSING and BRIGHTON Pines, MONROE SCARLET, LONGWORTHS Prolific, MCAVOY'S Superior and Extra Red and Iowa's. Also Fastolf, Franconia, Red and Yellow Antwerp's and Orange Raspberry Vines, and New-Rochelle Blackberry.

I. M. WARD, Newark, N. J.

Rhubarb Roots.

JUST RECEIVED from Europe
MYATTS VICTORIA RHUBARB ROOTS.
LINNÆUS RHUBARB ROOTS.
ASH LEAF KIDNEY POTATOES.
For sale by R. L. ALLEN, 191 Water-st., New-York.

RUSSIA OR BASS MATS, selected expressly for budding and tying, GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by D. W. MANWARING, Importer,
249 Front-street, New-York

NEW-ROCHELLE (OR LAWTON)

BLACKBERRY PLANTS.

PRICES REDUCED!

The Subscribers announce to their friends and customers that they have now

OVER SIX ACRES
of the
GENUINE NEW-ROCHELLE (OR LAWTON)
BLACKBERRY PLANTS

under cultivation, and in good condition.

They are therefore prepared to fill large orders the coming FALL and the next SPRING, at the following reduced prices:

One Thousand Plants	$100
One Hundred Plants	12
Fifty Plants	6 50
Two Dozen Plants	4
One Dozen Plants	2 50
One Half Dozen Plants	1 50

☞ Good Plants for setting, of a second size, will be sold for $80 per 1,000 Plants, or $10 per 100 Plants.

N. B.—All Plants ordered of us will be TAKEN up and PACKED with the GREATEST CARE, and UNDER OUR OWN PERSONAL SUPERVISION.

Of the MANY THOUSANDS sent out by us last year, we have heard very few instances of failure, notwithstanding that they have been forwarded to

EVERY PART OF THE COUNTRY,

and the setting out has often been entrusted to unskillful hands

Printed directions for setting and cultivating are sent with every package.

GEORGE SEYMOUR & CO.,
South Norwalk, Conn.

N. B.—DREW & FRENCH, 85 Barclay-street, New-York City, are our authorized agents for the sale of these plants, from whom they can be obtained of same quality and at same price as of ourselves. GEO. SEYMOUR & CO.

Lawton Blackberry.

This variety is unique, and not as many suppose, "The Common New Rochelle Blackberry," improved by cultivation.

AMERICAN POMOLOGICAL SOCIETY

at the fifth meeting of this National Association. Held in the City of Boston, in September, 1854. the *name* and *quality* of this new luxury for the fruit garden, was fully established and we extract from their report the following testimonials:

Mr. CABOT, of Massachusetts:—"I wish to enquire about Lawton's New-Rochelle Blackberry."

Rev. WM CLIFT, of Stonington, states:—"The Lawton Blackberry has fruited with me for the first time this season; it fulfils all its promise which is all that need be said of it. Coming just after raspberries, it prolongs the season of small fruits a month or more, and it is a great acquisition. It deserves a place in every garden"

Mr. PINE, of New-York:—"It is the most remarkable acquisition; very sweet and delicious indeed, and the hardiest plant possible."

Mr MAURICE, of New-York:—"It is very large, tender and delicious. I think it the greatest acquisition we have had."

Mr. CLARK, of Connecticut:—"I never saw anything more productive."

Mr. SAUL, of New-York:—"I can corroborate what others have said."

Mr. PRINCE, of New-York:—"It is a most remarkable acquisition of the blackberry kind—very sweet and delicious in deed; a great bearer and the hardiest plant possible."

GEORGE GABRIEL, Esq., of Stonington, Conn.:—"The Lawton Blackberry has fruited with me for the first time this season. It fulfills all its promises, and deserves a place in every garden."

Circulars containing testimonials, directions for planting, price, &c., sent free by mail. Address
WM. LAWTON, No. 54 Wall-St., New-York.

NEW-ROCHELLE OR LAWTON BLACKBERRY PLANTS.

This famous fruit was discovered and cultivated nearly twenty years ago, at New-Rochelle, N. Y., by Lewis A. Secor, from whom Lawton, Seymour and others obtained their original stock. Our pamphlet of 24 pages giving its entire history (name included) with directions for culture, will be forwarded post-paid on receipt of six cents in postage stamps.

Our Prices are reduced to the following rates.

FIRST SIZE, LARGE AND VIGOROUS.

One Thousand Plants	$100,00	Two Dozen Plants.	$4,00
One Hundred Plants	12,00	One Dozen Plants.	2,50
Fifty Plants	6,50	One half Dozen Plants	1,50

Second size Plants. $80.00 per 1,000.

We give the fullest guarantee of the genuineness and good condition of all plants sold by us. Address
DREW & FRENCH, 85 Barclay St.
New-York, March, 1858.

GENESEE VALLEY NURSERIES.
THE NEW-ROCHELLE BLACKBERRY.

We have on hand a large and fine stock of this popular fruit, which we can dispose of, either at Wholesale or Retail. Our plants are young and vigorous, the proper age and size for successful planting. Our price per thousand is $120. Per hundred $12 50; Per dozen $2. We can also supply plants of the new native Grapes at low prices, as well as a general selection of small Fruits. A. FROST & CO.
Genesee Valley Nurseries, Rochester, N. Y.

New-Rochelle Blackberry.

Vigorous shoots from the above at $10 per 100. $6 per 50. $4 per 25. $2 50 per dozen.

Transplanted plants of the same at $15 per 100. $8 per 50—$5 per 25—$3 per dozen. Hop trees at $1 each or $50 per 100.
P. C. ROOSEVELT, Pelham, Westchester Co., N. Y.

The Lawton Blackberry.

Plants in original Packages from Mr. Lawton's Farm in New-Rochelle, for sale at same prices as Mr Lawton.
R. L. ALLEN. 191 Water-st., New-York.

NEW ROCHELLE (OR LAWTON) BLACKberry. Genuine plants for sale by the 100 or 1,000 at the lowest rates. By SIMEON LESTER, New-Rochelle, N. Y.
Or apply to JOS. W. LESTER, 166 Water St., New-York City

Large Special Seed Premium.

We have been informed that the publishers of a professedly agricultural journal, got up as a covert advertising medium for a warehouse, have sent among a number of our subscribers, a private circular, offering a pound of Chinese Sugar Cane for a *two dollar* subscription. Now, though the *Agriculturist* has no outside business to support, or be supported by, we are determined not to be excelled in anything "in our line of business," and we therefore offer, on and after this date (March 1st) a *full pound* of PURE CHINESE SUGAR CANE seed of the *best* quality, for each NEW *one dollar* subscription for 1858 (vol. XVII complete.) (This is in addition to the seeds offered in the January and February numbers, to *all* subscibers alike, which offers are still continued.) If anybody can give more for a dollar, we—we———....No previous subscriber can complain of this extra offer, called out by an extra occasion, since we have always given all we proposed to do, and perhaps a little more, if the continued improvements, expensive illustrations, &c., in the present volume be taken into account.

Special Note to Correspondents.

We beg pardon for any seeming negligence or inattention. With fifty thousand or more intelligent readers, and writers too, located in every part of the country—and beyond—our table has been so greatly *overcrowded* with correspondence during the (to others) leisure Winter season, that after using all daylight hours, and much "midnight oil," and entrusting to our assistants all letters possible, we still find a very large number of them marked for "personal attention." These letters are all acceptable, and will be responded to as fast as *possible*.

Postage Only Six Cents.—How Estimated.

Not a week passes without complaints of Post Masters who, wise above what is written, and clothed with a little *brief* authority, insist upon charging double the legal postage on this journal. When pointed to what we have printed on the topic, they reply that "they do not go to Editors for their instructions, but to Washington." Well, we have humored them there. We sent a February number to Washington—all our paper is made of *uniform weight* with the copy sent. Here is an exact copy of the reply:

POST OFFICE DEPARTMENT—Appointment Office.
February 9, 1858.

SIR: In reply to yours of the 8th instant, I have to inform you that according to the sample which you transmit, the weight of the "*American Agriculturist*," *does not exceed three ounces*, and is to be rated with postage accordingly.

Very Respectfully &c.
HORATIO KING,
First Assistant P. M. General.

MR. ORANGE JUDD,
189 Water-street, New-York, N. Y.

To a second letter, the same officer responded, under date of February 15th:

In reply to yours of the 12th instant, I inform you that the weight of newspapers is to be taken or determined when they are in a dry state, and the weight of the wrapper is not to be included.

Respectfully &c.
HORATIO KING, &c.

We have not been to the trouble to send for and publish the above on our own account, as we know the plain letter of the law on the subject, but to satisfy those who insist on having instructions direct from Head quarters. Our frequent difficulties on this point, result from the fact, that, though under the legal weight requiring double newspaper postage (over 3 ounces), yet it comes very nearly up to 3 ounces, and when weighed damp, or with the wrapper, or in "coffee scales" it will go over 3 ounces—especially if the said "coffee scales" are such as are in the habit of making any thing put into them *weigh a little more than they ought to do.*

We repeat the substance of the law: Periodicals sent to regular subscribers, and weighing not over *three ounces avordupois*, when dry and without wrapper, are to be charged one cent each; one half of which is to be deducted when the postage is paid quarterly in advance, at the office where received....The *Agriculturist* sheet weighs 2.817 ounces, that is 8¼ lbs. to the ream of 480 sheets.

SUBSCRIPTION ON CREDIT—A FAIR PROPOSITION.—A farmer in Mississippi, writes that we "ought to send the *Agriculturist* out on credit—people don't like to pay for a thing before they get it." To which we reply—"it's a poor rule that don't work both ways." You have 50,000 bushels of corn, worth 50 cents a bushel. Suppose you advertise to send two bushels of it to each and every person who will write to you for it from any part of the country—to be paid for one year after reception. What a nice job in collecting.

Contents for March 1858.